

FIGURINE BASE, OBJECT MANAGEMENT SYSTEM AND METHODS

Technical Field

The present disclosure relates to a base, including base components and base
5 assemblies, used for miniature figurines for role-playing games.
The present disclosure relates to an object that includes an electronic device.
The present disclosure relates to systems, methods and computer programs for storing
and managing data associated with physical objects.

10 Related applications

The present application claims priority to Australian provisional patent application No.
2023900614 filed 7 March 2023, Australian provisional patent application No. 2023904010
filed 11 December 2023, and Australian provisional patent application No. 2023904012
filed 11 December 2023, the contents of which are incorporated herein by reference in
15 their entirety.

Background

Fantasy tabletop role-playing games use miniature figurines to represent characters that
are placed on a playing surface that has a grid system to determine where and how far
20 the miniature can move. During role-playing games, players can cast spells and/or
perform other actions during events such as battles. The health and condition of the
character can change depending on actions they receive from others, such as blows
incurred during a battle.

25 The character's status for health, spells cast, actions, conditions, and so on are generally
outlined by placing tiles on the playing surface. However, these tiles can clutter the
playing surface and restrict natural movement of characters during the game.

Physical objects such as miniature figurines used in tabletop games typically do not have
30 any interaction with digital systems. That is, tabletop games are generally distinct from
digital games, taking place in the physical world. Further, where one does wish to
integrate a digital system with a physical game such as a tabletop game, existing systems
fail to ensure that there is a low technical barrier to entry and that performance is not sub-
optimal due to hardware and/or software limitations. There are also significant issues
35 ensuring that the data stored in the digital system is an accurate reflection of the real-
world status of the game and with verifying the integrity of this data.

- 2 -

Summary

A first embodiment provides a base for supporting a miniature figurine, the base comprising a body having:

- 5 an upper surface on which the miniature figurine can be placed;
- a first magnet positioned within a first recess in the body and that is aligned with an axis of the body;
- a set of second magnets that are radially offset relative the first magnet.

- 10 The set of second magnets may be coaxially arranged with the first magnet. The base may further comprise a third magnet axially aligned with the first magnet and associated with a third recess such that the third magnet is inset from a bottom surface of the body. The second set of magnets may be coaxially aligned with the third magnet. One or more magnets of the second set of magnets may be associated with a respective receptacle in
- 15 which an auxiliary magnet or ferromagnetic material can be received and magnetically retained therein.

- Each magnet of the set of second magnets may be equidistantly spaced from one another. The body may have an upper portion that includes the upper surface. The body
- 20 may have a lower portion that includes a frustum having 2^n number of sides. Each magnet of the second set of magnets may be associated with a separate side of the frustum. The sides of the frustum may be angled between 35° and 65° relative the axis of the body. A pole face of each magnet of the second set of magnets may be orientated transversely relative the axis of the body. A pole face of each magnet of the second set of magnets
 - 25 may be perpendicular to the axis of the body.

- A portion of the first magnet may protrude from the upper surface. The upper surface may have a perimeter defined by an upwardly extending lip. An outer edge of the upper surface may be in the form of a circle or polygon. The set of second magnets may include
- 30 two or more magnets. The set of second magnets may include three magnets. The set of second magnets may include four magnets. The set of second magnets may include five magnets. The set of second magnets may include six magnets. The set of second magnets may include seven or more magnets.

- 35 A second embodiment provides a base for supporting a miniature figurine, the base comprising a planar body having:

- 3 -

a first magnet having a portion protruding from a first side of the body;
a cavity that opens out at a second side of the body;
a disc having a set of second magnets, the disc being receivable in the cavity and retainable therein by magnetic interaction of the set of second magnets and the first
5 magnet; and
a dial having a third magnet protruding therefrom, the third magnet being receivable in the cavity and retainable therein by magnetic interaction of the third magnet and the first magnet,
wherein the disc and dial are independently rotatable about an axial direction of
10 the first magnet.

The base may further comprise a recess located in the cavity and that is axially aligned with the first magnet. A distal end of the third magnet may be receivable in the recess when the dial is located in the cavity. The disc may be annular such that the third magnet
15 can pass through a central opening of the disc. The dial may have a radially extending arm that can overhang the disc. The dial may have one or more radially extending protrusions at an opposite end to the arm that overhangs the disc. The disc may be provided with a first set of indicia. The second side of the planar body may be provided with a second set of indicia. The dial may be provided with an indicium.

20 The set of second magnets may include three magnets equidistantly spaced around the disc. The set of second magnets may include four magnets equidistantly spaced around the disc. The set of second magnets may include five magnets equidistantly spaced around the disc. The set of second magnets may include six magnets equidistantly
25 spaced around the disc. The set of second magnets may include seven or more magnets equidistantly spaced around the disc.

A portion of the first magnet may protrude from the first side by up to about 50% of a height of the first magnet. A portion of the first magnet may protrude from the first side by
30 up to about 1 mm. The cavity may be circular.

A third embodiment provides a base for supporting a miniature figurine, comprising:
an upper component comprising a body having:
an upper surface on which the miniature figurine can be placed;
35 a first magnet that is aligned with an axis of the body;
an open recess positioned on the axis of the body; and

- 4 -

a set of second magnets that are radially offset relative the first magnet;
a lower component comprising:

a first magnet protruding from a first side of the planar body and that is
receivable in the recess of the upper component and magnetically engageable with
the upper component;

a cavity that opens out at a second side of the planar body; and

a disc having a set of second magnets, the disc being receivable in the
cavity and retainable therein by magnetic interaction of the set of second magnets
and the first magnet of the lower component;

wherein the upper component and lower component can be magnetically
coupled to one another to form an assembly where the second set of magnets of
the upper component and the second set of magnets from the disc of the lower
component magnetically interact with one another such that rotation of the upper
component relative the lower component causes the disc to rotate relative the
lower component.

The upper component may be the base of the first embodiment. The lower component
may be the base of the second embodiment.

An embodiment provides an adaptor that in use is secured to an underside of a miniature
figurine, the adaptor comprising:

a plate having a central recess for receiving a first magnet such that the first
magnet can be inset relative a face of the plate;

several recesses located in the plate for receiving a set of second magnets that
are coaxially arranged with the first magnet.

The central recess may be a through hole. The several recesses may be equidistantly
arranged around a boundary of the plate. The several recesses may each have an open
side. The adaptor may comprise reinforcing members that extend radially from the central
recess to the several recesses.

An embodiment provides a spinner assembly for use in a role-playing game, the spinner
assembly comprising:

a lower component comprising:

a planar body having an upper side,

a projection of or attached with the planar body extending from the upper side

- 5 -

aligned axially with an axis of the planar body,

a set of one or more first magnets that are radially offset relative the axis,
a rotatable component comprising:

5 a generally disc or circular shaped body having a recess aligned coaxially with
the axis, the recess configured for receiving the projection so as to allow the
rotatable component to be rotatably supported so as to be rotatable about the axis,
and

a set of one or more second magnets that are radially offset relative the axis.

10 In an embodiment, the set of first magnets comprises a plurality of magnets. In an
embodiment, the set of second magnets comprises a plurality of magnets.

In an embodiment, the axis is aligned with the vertical axis.

15 In an embodiment, the sets of first and second magnets are positioned relative each other
so as to be magnetically interactable for biasing the rotatable component in an orientation
that is generally parallel with the planar form of the lower component.

In an embodiment, the set of first and second magnets are positioned relative each other
20 so as to magnetically interact to positionally stabilise or register the rotatable component
at a desired position relative the lower component following cessation of rotation of the
rotatable component, or spaced appropriately so as to not interfere with the gyroscopic
motion of the rotatable component enabled by the first and second sets of magnets.

25 In an embodiment, the set of first magnets are coaxial with the axis. In an embodiment,
the set of second magnets are coaxial with the axis. In an embodiment, the sets of first
and second magnets are orientated substantially the same so that their respective poles
are orientated in the same manner. In an embodiment, the sets of first and second
magnets are axially magnetized disc magnets.

30 In an embodiment, the sets of first and second magnets align radially relative the axis. In
an embodiment, the sets of first and second magnets have the same number of magnets.
In an embodiment, the sets of first and second magnets are spaced equidistant about
their respective host bodies. In this manner, each magnet of the sets of first and second
35 magnet lie on about the same radial line emanating from the axis.

- 6 -

In an embodiment, the first and second magnets are radially offset from each relative the axis.

5 In an embodiment, the set of first and second magnets are positioned relative each other so as to magnetically interact so as to stabilise the rotatable component at or about a desired position of alignment relative the lower component following cessation of rotation of the rotatable component.

10 In an embodiment, the first and second sets of magnets are spaced or offset from one another in the vertical plane.

15 In an embodiment, the sets of first and second magnets are orientated substantially the same so that their respective poles are orientated in the same manner, the set of first and second magnets positioned relative each other so as to magnetically interact so as to generate a repulsive effect therebetween having components in the vertical plane and the horizontal plane

20 In an embodiment, the set of first magnets are radially offset from the set of second magnets so as to be inward most relative to the axis. In an embodiment, the set of second magnets are radially offset from the set of first magnets at a distance of about 1.3mm. In this manner, gyroscopic motion of the rotatable component while rotating can seek to be continued for as long as possible for maintaining its orientation of rotation.

25 In an embodiment, the set of second magnets are radially offset from the set of first magnets so as to be inward most relative to the axis.

30 In an embodiment, the sets of first and second magnets are radially spaced from the axis at about the same distance. In an embodiment, an orientation of the poles of the set of first magnets is different to the orientation of the poles of the set of second magnets. In this manner, the spacing of the first and second magnets and their respective magnetic interaction biases a magnet of one of the sets of the first, second magnets to positionally stabilise intermediate adjacent magnets of the alternate set of magnets. In an embodiment, the repulsive magnetic interaction causes the rotatable component to be biased downwards.

35 In an embodiment, the rotatable component is a single piece body, or an assembly of

- 7 -

more than one component parts.

In an embodiment, a distal portion of the projection is substantially flat, pointed, domed, circular, oval, hemispherical etc.

5

In an embodiment, the spinner assembly comprises a cover component configured so as to cover a portion of the lower and rotatable components when assembled with the lower component.

10 In an embodiment, the cover component comprises a planar support surface on which a miniature figurine or embodiment of, or a component of, a base, base assembly, or adapter described herein can be placed. In an embodiment, the cover component comprises a side wall extending away from a portion of the periphery of the support surface so as to define a lower rim spaced from the planar support surface. The sidewall
15 is shaped in its extension away from the support surface. A portion of the side wall may be open.

In an embodiment, the sidewall of the cover component comprises one or more apertures, slots or cut-out portions. The sidewall of the cover component may comprise one or more
20 sets of indicia provided on its body.

In an embodiment, one of the apertures, slots, or cut-out portions or the open portion of the side wall exposes a portion of the rotatable component when the cover component is assembled thereabout, the exposed portion of the rotatable thereby being accessible to a
25 user so as to rotate the rotatable component.

In an embodiment, the rotatable component comprises a set of one or more third magnets and the cover component comprises a set of one or more fourth magnets. In an embodiment, the set of third magnets comprises a plurality of magnets spaced about the
30 rotatable component, and the set of fourth magnets comprises a plurality of magnets spaced about an interior wall of the side wall of the cover component, wherein, in use, the set of third and fourth magnets magnetically interact so as to positionally stabilise or register the rotatable component at a desired position relative the lower component following cessation of rotation of the rotatable component, or spaced appropriately so as
35 to not interfere with the gyroscopic motion of the rotatable component enabled by the first and second sets of magnets.

- 8 -

In an embodiment, the third and fourth magnets are in coaxial relation with each other relative.

5 The rotatable component may comprise, carry, or host one or more electrical devices or components. In an embodiment, the electrical components may be a plurality of light emitting diode (LED) modules, or an RFID tag, a NTAG® 424 DNA tag. In an
embodiment, the plurality of LEDs are spaced about the axis at or near a periphery of the rotatable component in an equispaced manner. In an embodiment, the LEDs may be
10 removably associated with the rotatable component.

The rotatable component may comprise a source of electrical power.

The spinner assembly may comprise or be operable with an inductive power transfer
15 arrangement for providing power to one or more electrical components carried by the rotatable component. In an embodiment, an inductive power transfer coil is associated with the lower component, and operable by way of a power source for establishing an electromagnetic field of sufficient strength to encompass a portion of the rotatable component during use. In an embodiment, one or more electrical components or the
20 plurality of LEDs are positioned about the rotatable component so as to be subject to the electromagnetic field so as to operate.

In an embodiment, the LEDs comprise magnetic elements. In an embodiment, the set of
third magnets comprise one or more magnetic elements of the LEDs. In this manner, the
25 magnetic elements of one or more LEDs may interact with one or more of the set of fourth magnets of the cover component for use in positionally stabilising the rotatable component at or with a desired position following cessation of rotation of the rotatable component.

The rotatable component may comprise one or more sets of indicia provided on its body.
30

In an embodiment, positioning of the or each aperture or slot is so as to register with an LED of the rotatable component when the rotatable is brought to a stabilised stopped or rest position (due to the magnetic interaction of the sets of third and fourth magnets and/or the magnetic interaction of the sets of first and second magnets) following cessation of
35 rotation.

- 9 -

In some embodiments, a spinner assembly can be provided and configured whereby magnetic attraction is used as the primary means for enabling the rotatable component to settle and align in a desired manner, which may be for example, so as to align or register one or more indicia provided on the rotatable component with an aperture, slot, or cut-out section provided with the side wall of the cover component (or one which extends from the lower component). For example, a plurality of magnets, LEDs, or components comprising materials capable of magnetic interaction, can be placed in, at, or near the outer periphery of the rotatable component. Furthermore, one or more magnets (LED or magnetic material) can be implanted into side wall of the cover component (or one which extends from the lower component) at an approximate height where magnetic interaction occurs, to slow and axially align the indicia in a fixed position, as to not interfere with the gyroscopic motion of the rotatable component due to the magnetic attraction occurring on the same plane where the centrifugal force is present (with considerations for weight of the rotatable component and points (method) of contact with the projection).

An embodiment provides a spinner assembly for use in a role-playing game, the spinner assembly comprising:

- a lower component comprising:
 - a planar body having an upper side,
 - a projection of or attached with the planar body extending from the upper side aligned axially with an axis of the planar body,
- a rotatable component comprising:
 - a generally disc or circular shaped body having a recess aligned with the axis, the recess configured for receiving the projection so as to allow the rotatable component to be rotatably supported above the lower component so as to be rotatable about the axis.

Software

In some embodiments of the disclosure, there is provided a base for supporting a miniature figurine, the base comprising an electronic device. The electronic device may comprise a wireless communication system. The electronic device may comprise a controller. The controller may comprise at least one processor. The controller may comprise memory. The memory may store data associated with the base. The memory may store program instructions accessible by the at least one processor.

The base may comprise a recess. The electronic device may be secured within the

- 10 -

recess. The electronic device may comprise a NTAG® 424 DNA tag.

In some embodiments of the disclosure, there is provided a base assembly for supporting a miniature figurine, the base assembly comprising an electronic device. The electronic device may comprise a wireless communication system. The electronic device may comprise a controller. The controller may comprise at least one processor. The controller may comprise memory. The memory may store data associated with the base assembly. The memory may store program instructions accessible by the at least one processor.

The base assembly may comprise a recess. The electronic device may be secured within the recess. The electronic device may comprise a NTAG® 424 DNA tag.

In some embodiments of the disclosure, there is provided an adaptor that in use is secured to an underside of a miniature figurine. The adaptor may comprise an electronic device. The electronic device may comprise a wireless communication system. The electronic device may comprise a controller. The controller may comprise at least one processor. The controller may comprise memory. The memory may store data associated with the adaptor. The memory may store program instructions accessible by the at least one processor.

The adaptor may comprise a recess. The electronic device may be secured within the recess. The electronic device may comprise a NTAG® 424 DNA tag.

In some embodiments of the disclosure, there is provided a method. The method may comprise:

- receiving object data from an electronic device, the object data being associated with an object;
- determining content data that is associated with the object data; and
- transmitting the content data.

The content data comprises user interface data that is configured to be rendered for display. The method may further comprise rendering a user interface based at least in part on the content data.

The user interface may comprise one or more of:

- a first section that is configured to enable a user to view, add, remove and/or group

- 11 -

UID-key pairs;

a second section that is configured to enable generation or selection of shortcodes;

a third section that is configured to enable restriction of access to one or more aspects of the user interface; and

a fourth section that is configured to enable backing up and restoration.

The method may further comprise:

transmitting encryption data to the electronic device;

validating, by the electronic device, the encryption data; and

transmitting, by the electronic device, the object data, in response to the validation.

The encryption data may comprise a decryption key.

The method may further comprise:

exchanging encryption data with the electronic device; and

transmitting, by the electronic device, the object data, subsequent to the exchanging of the encryption data.

The method may further comprise:

validating the object data, wherein validating the object data comprises comparing the object data to validation data.

The object data may comprise a shortcode. The content data may comprise game data

that is associated with a particular storyline of a game. The object may be at least part of a miniature figurine.

The object data may comprise one or more of:

a unique identifier;

one or more encryption keys;

data indicative of a character identity that is associated with the object;

data indicative of a character type that is associated with the object;

data indicative of a character status that is associated with the object;

equipment data that is associated with the object; and

data indicative of a skill that is associated with the object.

- 12 -

The content data may be associated with one or more of:

- a quest of a game;
- a character arc of the game;
- dialogue of the game; and
- 5 a sidequest of the game.

In some embodiments of the present disclosure, there is provided a content host. The content host may comprise at least one processor. The content host may comprise memory. The memory may store program instructions accessible by the at least one
10 processor. The program instructions may be configured to cause the at least one processor to receive object data that is associated with an object; determine content data that is associated with the object data; and transmit the content data to a user interface system.

15 The content data may comprise user interface data that is configured to be rendered for display.

The program instructions may further be configured to cause the at least one processor to validate the object data, wherein validating the object data comprises comparing the
20 object data to validation data.

The object data may comprise one or more of:

- a shortcode;
- a character type that is associated with the object;
- 25 a character identity that is associated with the object;
- a character status that is associated with the object;
- equipment data that is associated with the object; and
- a skill that is associated with the object.

30 In some embodiments of the present disclosure, there is provided a system. The system may comprise the content host. The system may comprise an electronic device. The electronic device may comprise a wireless communication system. The electronic device may comprise a controller. The controller may comprise at least one controller processor. The controller may comprise controller memory. The controller memory may store the
35 object data. The controller memory may store controller program instructions accessible by the at least one controller processor.

- 13 -

The controller program instructions may be configured to cause the at least one controller processor to wirelessly transmit the object data using the wireless communication system.

- 5 The object may comprise any embodiment of a base as described herein; any embodiment of an adaptor as described herein; and/or any embodiment of a spinner assembly as described herein.

- 10 The system may further comprise the object. The object may comprise the electronic device. The object may comprise a recess. The electronic device may be secured within the recess. The object may be at least part of a miniature figurine.

- 15 The controller program instructions may be configured to cause the at least one controller processor to receive encryption data, via the wireless communication system. The controller program instructions may be configured to cause the at least one controller processor to validate the encryption data. The controller program instructions may be configured to cause the at least one controller processor to transmit the object data, via the wireless communication system, in response to the validation.

- 20 The encryption data may comprise a decryption key.

- The controller program instructions may be configured to cause the at least one controller processor to:
- 25 exchange encryption data with another electronic device; and
transmit the object data subsequent to the exchanging of the encryption data.

- The system may further comprise a user interface system. The user interface system may be configured to receive the content data and to render a user interface based at least in part on the content data.

- 30 The user interface may comprise one or more of:
- a first section that is configured to enable a user to view, add, remove and/or group UID-key pairs;
 - a second section that is configured to enable generation or selection of shortcodes;
 - 35 a third section that is configured to enable restriction of access to one or more aspects of the user interface; and

- 14 -

a fourth section that is configured to enable backing up and restoration.

The user interface system may comprise a network interface that is configured to enable the user interface system to communicate with the content host using a communications
5 network. The user interface system may be configured to provide the object data to the content host using the communications network. The user interface system may be configured to display the user interface on a display. The content data may comprise game data that is associated with a particular storyline of a game.

10 The system may comprise a communication device. The communication device may be in communication with the user interface system. The communication device may be configured to:

receive the object data transmitted by the electronic device; and
provide the object data to the user interface system.

15

The communication device may be configured to energise the electronic device.

Brief Description of the Drawings

The disclosure will now be described, by way of example only, with reference to the
20 accompanying non-limiting drawings, in which:

Figure 1 shows a top perspective view of an embodiment of a top base component for supporting a miniature figurine.

Figure 2 shows a bottom perspective view of a top base component for supporting a miniature figurine.

25 **Figure 3** shows a cross-sectional view along line A-A in **Figure 1**.

Figure 4 shows a top perspective view of another embodiment of a top base component for supporting a miniature figurine.

Figure 5 shows a bottom perspective view of a top base component for supporting a miniature figurine.

30 **Figure 6** shows a cross-sectional view along line B-B in **Figure 4**.

Figure 7 shows a top perspective view of another embodiment of a top base component for supporting a miniature figurine.

Figure 8 shows a (A) perspective end view and (B) cross-section view along line X-X in

35 **Figure 8(A)** of an accessory that can be magnetically connected to an upper base component.

Figure 9 shows a bottom perspective view of a bottom base component for supporting a

miniature figurine.

Figure 10 shows a bottom perspective view of a bottom base sub-component.

Figure 11 shows a top perspective view of a bottom base sub-component.

Figure 12 shows a cross-sectional view along line C-C in **Figure 11**.

5 **Figure 13** shows (A) a plan view and (B) a cross-sectional view along line Y-Y of an embodiment of a bottom base sub-component.

Figure 14 shows a bottom perspective view of an embodiment of a bottom base sub-component.

10 **Figure 15** shows a top perspective view of an embodiment of a bottom base sub-component.

Figure 16 shows a cross-sectional view along line D-D in **Figure 9**.

Figure 17 shows a plan view of another embodiment of a bottom base sub-component.

Figure 18 shows a plan view of another embodiment of a bottom base sub-component.

15 **Figure 19** shows a bottom perspective view of an embodiment of an assembly of a base for a miniature figurine.

Figure 20 shows a cross-sectional view along line E-E in **Figure 20**.

Figure 21 shows (A) a top perspective view and (B) a bottom perspective view of an embodiment of a figurine adaptor.

20 **Figure 22** shows a bottom perspective view of an embodiment of a figurine adaptor fitted with magnets.

Figure 23 shows (A) a perspective rear view and (B) a perspective front view of another embodiment of an accessory that can be magnetically connected to an upper base component.

25 **Figure 24** shows a top-down perspective view of another embodiment of an assembly of a base for a miniature figurine.

Figure 25 shows a bottom-up perspective view of the embodiment of the assembly shown in **Figure 24**.

Figure 26 shows an exploded perspective view (from above) of the embodiment of the assembly shown in **Figure 24**.

30 **Figure 27** shows an exploded perspective view (from below) of the embodiment of the assembly shown in **Figure 24**.

Figure 28 shows a cross-sectional view along line Z-Z of the exploded view shown in **Figure 24**.

35 **Figure 29** shows a first perspective view of an embodiment of an accessory that can be magnetically associated with embodiments of the base of the present disclosure.

Figure 30 shows a second perspective view of the embodiment of the accessory shown in

Figure 29.

Figure 31 shows a perspective view (from above) of the embodiment of the accessory shown in **Figures 29** and **30** attached with another embodiment of the third component of the upper component assembly shown in **Figures 24** to **28**.

5 **Figure 32** shows another perspective view (from below) of that shown in **Figure 31**.

Figure 33 shows a perspective view (from above) of another embodiment of a base assembly (attached with the accessory shown in **Figures 29** to **30**) but attached with another embodiment of a lower component assembly (shown in perspective view in lower portion of page) of the present disclosure.

10 **Figure 34** shows an exploded perspective view (from above) of the embodiment of the lower component assembly shown in **Figure 33**.

Figure 35 another exploded perspective view (from below) of the embodiment shown in **Figure 34**.

15 **Figure 36** shows a perspective view of another embodiment of an accessory that can be magnetically associated with embodiments of the base of the present disclosure.

Figure 37 an elevation view of the embodiment shown in **Figure 36**.

Figure 38 shows a perspective (viewed from above) of an embodiment of a spinner assembly.

20 **Figure 39** shows a perspective view of a cross section of the spinner assembly of **Figure 38**, taken along section plane A1-A2 (as identified in **Figure 38**).

Figure 40 shows an embodiment of a lower component of the embodiment of the spinner assembly shown in **Figure 38**, in which (a) shows a perspective view viewed from above (showing topside), (b) shows a perspective view viewed from below (showing underside), and (c) shows a cross section through section plane A1-A2 (as identified in (a)).

25 **Figure 41** shows an embodiment of a lower part of an embodiment of a rotatable component of the embodiment of the spinner assembly shown in **Figure 38**, in which (a) shows a perspective view viewed from above (showing topside), (b) shows a perspective view viewed from below (showing underside), and (c) shows a cross section through section plane A1-A2 (as identified in (a)).

30 **Figure 42** shows an embodiment of an upper part of an embodiment of a rotatable component of the embodiment of the spinner assembly shown in **Figure 38**, in which (a) shows a perspective view viewed from above (showing topside), (b) shows a perspective view viewed from below (showing underside), and (c) shows a cross section through section plane A1-A2 (as identified in (a)).

35 **Figure 43** shows an embodiment of an enclosure of an embodiment the spinner assembly shown in **Figure 38**, in which (a) shows a perspective view viewed from above (showing

topside), (b) shows a perspective view viewed from below (showing underside), and (c) shows a cross section through section plane A1-A2 (as identified in (a)).

Figure 44 shows an exploded perspective cross section showing the components of the spinner assembly shown throughout **Figures 38-43**.

- 5 **Figure 44a** show schematic representations of three example magnetic interactions involving an embodiment of the spinner assembly shown in **Figures 38 to 44**.

Figure 45 shows a cross-sectional view of an embodiment of object, the object including an electronic device, according to some embodiments.

- 10 **Figure 46** is a block diagram of an object management system, according to some embodiments.

Figure 47 is a process flow diagram of a method, according to some embodiments.

Figure 48 shows a user interface, according to some embodiments.

Detailed Description

- 15 The following detailed description outlines various embodiments with reference to the accompanying Figures. The embodiments depicted in the Figures are not drawn to scale and are merely used to provide an understanding of the features of the embodiments and any applicable interworking relationship.

20 Base, adapters, and related assemblies/components

With reference to **Figures 1-3**, an embodiment provides a base **10** for supporting a miniature figurine. The base **10** can be considered as forming a first base component, or top or upper base component, for a base assembly.

- 25 The base **10** has a body in the form of disk **12**. Although the body is represented as disc **12**, it could be embodied in other forms, such as a triangle, square, pentagon, or any other polygon shape. The disc **12** has a top portion **13** having an upper surface **14** on which a miniature figurine can be placed (not shown). A side wall **24** extends downwards and outwards from the upper surface **14** and terminates at a lower surface **22**. As shown in
- 30 **Figure 3**, the side wall **24** is in the form of a rim that extends circumferentially. A width of the lower surface **22** as part of the rim is about 1.2 mm to about 1.8 mm, such as about 1.5 mm. The side wall **24** may extend perpendicularly downwards from the upper surface **14**. The base **10** has an open-ended cavity **28** that opens up to a bottom of the base **10** and is defined by the top portion **13** and the side wall **24**. The opening of the cavity **28** is defined by an inner diameter of the lower surface **22**. The cavity **28** may have a depth
- 35 extending upwards from the lower surface **22** of about 1.5 mm. A diameter of the disc **12**

- 18 -

may range from about 10 mm to about 50 mm. In an embodiment, a diameter of the disc **12** may be about 25 mm to about 35 mm. A height of the disc **12** may be about 3.0 mm to about 4.5 mm. The dimensions of the diameter and height of the disc **12** may be scaled up and down.

5

Extending from the top portion **13** down into the cavity **28** is a first magnet recess **19** in which a first magnet **16** can be received. The first magnet **16** is associated with the upper surface **14** such that a miniature placed on the upper surface **14** can magnetically interact with the first magnet **16**. The first magnet recess **19** has a cylindrical wall that terminates at a bottom face **18**. The first magnet **16** is aligned along an axis **17** of the disc **12**, and a lower surface of the first magnet **16** is offset relative the bottom face **18** such that a component receiving cavity **27** is formed therein. A depth of the component receiving cavity **27** may be about 0.7 mm. The component receiving cavity **27** is sized to receive a magnet from another component, as is described below in more detail with reference to **Figure 20**. In an embodiment, a plane of the bottom face **18** is offset relative a plane of the lower surface **22**. In an embodiment, a plane of the bottom face **18** and a plane of the lower surface **22** are coplanar.

20

The base **10** also has a set of second magnets **20**. In the embodiment shown in **Figures 1-3**, the base **10** has four second magnets, **20a**, **20b**, **20c** and **20d**. However, the second set of magnets could have more or less than four magnets. For example, a larger base (e.g. >50mm diameter) may have five magnets arranged in a similar manner to base **10**. The second magnets **20a**, **20b**, **20c** and **20d** are radially offset from the axis **17** and in an embodiment are equidistantly spaced from one another. Each of the second magnets is housed in an associated recess **25a**, **25b**, **25c** or **25d**. Each recess **25** is provided in the upper portion **13** and opens out into the cavity **28**. In the embodiment shown in **Figures 1-3**, the second magnets **20a**, **20b**, **20c** and **20d** are coaxial with the component receiving cavity **27**. In an embodiment, the second magnets **20a**, **20b**, **20c** and **20d** are coaxial with the first magnet **16**. In base **10**, a pole face **23** of each magnet of the second set of magnets **20** is perpendicular to the axis **17** i.e. parallel to the upper surface **14**.

30

The upper surface **14** has one or more receptacles **30** that can receive an auxiliary component such as an accessory. As shown in **Figure 1**, the base **10** has two receptacles **30**. An accessory that can be received in the receptacle is described below with reference to **Figure 8** and **Figure 23**. Each receptacle **30** has a lip **32** that extends away from the upper surface **14**. A floor of the receptacle **30** may be aligned with a plane of the upper

35

- 19 -

surface **14** or may be offset in a plane parallel to the upper surface **14**. Each receptacle **30** is positioned above one of the second magnets **20**. The receptacles **30** may have an internal diameter of about 4 mm and a depth of about 0.5 mm to about 0.9 mm. In the embodiment shown in **Figures 1-3**, receptacle **30a** is positioned above second magnet **20c** and receptacle **30b** is positioned above second magnet **20d**. In an embodiment the receptacles **30** are each aligned with an axis of a respective second magnet **20**.

The relative position of the second magnets **20** and the receptacles **30** means that an auxiliary magnet or ferromagnetic material associated with an accessory or auxiliary component can be received and magnetically retained in the receptacle **30**. The accessory or auxiliary component may be a spell. The accessory or auxiliary component may be designed specifically for base **10** or bases **10a** (**Figures 4-6**) or **10b** (**Figure 7**) as described below.

Another embodiment of a base **10a** is shown in **Figures 4-6**. Base **10a** has similar features to base **10** and like features are identified using the same numerical references. Base **10a** has a body **12** having an upper segment **11** and lower segment **15** that are generally delineated by waist **41** (**Figure 6**). The upper segment **11** and lower segment **15** may be integral or separate components that are joined together. The upper segment **11** has upper surface **14**. An upwardly extending lip **40** runs around a perimeter of the upper surface **14** and has top surface **42**, and an inner face **46** that defines an edge of the upper surface **14**. The upper segment **11** has an overhang **51** that extends radially inwards from the lip **40** that transitions into inwardly tapering wall **49** that terminates at the waist **41**. In an embodiment, the upper segment **11** the tapering wall **49** extends from the waist **41** to the lip eliminating the need for overhang **51**. The lip **40** is not required in all embodiments and instead may be a perimeter of the upper surface **14**.

In base **10a**, the first magnet recess **19** extends upwards and opens out to the upper surface **14** (**Figure 6**). A floor **21** of the first magnet recess **19** is positioned such that a portion of the first magnet **16** when seated in the first magnet recess **19** protrudes from the upper surface **14**. In an embodiment, the first magnet **16** extends from upper surface **14** by about 0.3 mm to about 0.7 mm, such as about 0.5 mm.

The lower segment **15** is formed as a frustum where the angled side wall **44** is defined collectively by respective faces of the frustum. The frustum has 2^n number of sides. In the embodiment shown in **Figures 4-6**, the frustum has eight sides. The angled side wall **44**

- 20 -

extends inwards from lower surface **22** to the waist **44**. The second magnet recesses **25** open out to the angled side wall **44**. Put another way, each second magnet recess **25** opens out to a separate face of the frustum. A floor of each second magnet recess **25** is approximately parallel to the angled side wall **44**. As shown in **Figure 6**, the angled side wall **44** is angled relative the lower surface by angle θ . Angle θ is < (less than) about 90° . In an embodiment, angle θ ranges from about 30° to about 60° . In an embodiment, angle θ is about 45° .

Having each magnet of the second set of magnets **20a**, **20b**, **20c** and **20d** positioned on a respective face **44** of the frustum provides a flat surface that an accessory or auxiliary component can abut or mate with. This can help to provide a more secure connecting or mating with an accessory compared to a rounded face.

In the embodiment shown in **Figure 6** the second set of magnets **20a**, **20b**, **20c**, **20d** are positioned in respective second magnet recesses **25** and are radially offset from the first magnet **16** relative the axis **17**. A pole face **23** of each second magnet **20** is inset relative a face of the angled side wall **44** thereby defining respective receptable **30**. A pole face **23** of each magnet of the second set of magnets is parallel to the angled side wall **44**. Accordingly, the pole face **23** of each second magnet **20** is angled transversely relative the axis **17** i.e. upper surface **14**. Having each magnet of the second set of magnets **20** orientated transverse to the axis **17** means that in an embodiment the magnetic field lines of each second magnet **20** extends approximately parallel (i.e. within about 30°) to the axis **17** at a plane of the lower surface **22**. Magnetic field lines are shown schematically in **Figure 6** by dashed line **50**. This orientation of magnetic field lines can help to ensure the second set of magnets **20** can be magnetically connected to other components, such as described below with reference to **Figure 20**, while at the same time providing clearance and access for an accessory to be received in receptacle **30**. If the pole face **23** of the set of second magnets **20** was parallel to the axis **17** the majority of the magnetic field lines would extend approximately parallel to a plane of the bottom surface **22**.

The base **10a** further includes third magnet recess **52** which is located in the lower segment **15** and opens out to the bottom surface **22**. The third magnet recess **52** is axially aligned with the first magnet **16** and can receive a third magnet **48**. The relative sizes of the third magnet recess **52** and third magnet **48** is such that the third magnet **48** is inset relative the bottom surface **22** thereby forming component receiving cavity **27**. The set of second magnets **20** is coaxial with the third magnet **48**.

- 21 -

Another embodiment of a base **10b** is shown in **Figure 7**. Base **10b** differs to base **10a** in the shape of the lip **40'** and the upper surface **14'** in the upper segment **11'** are square. All other features of the **10b** and **10a** are the same. The lip **40** and upper surface could be
5 any other polygon shape e.g. triangle, pentagon, and so on.

Now referring to **Figure 8**, an accessory **300** is shown in the form of spell. The spell has a shank **310** that terminates at end **314**. Opposite end **314** is spell component **312** extending from the shank **310**. The specific shape and configuration of the spell
10 component **312** is for illustration purposes only and will or may differ depending on the type of spell and role-playing game. An end recess **318** is provided in the shank **310** and opens out at the end **314**. An accessory magnet **316** is provided in the end recess **318** and a portion of the accessory magnet **316** protrudes past the end **314** to act as a boss. In use, the protruding section of the accessory magnet **316** is received in the receptacle **30**
15 and is magnetically coupled or connected to the second magnet **20** associated with the receptacle **30**. The end **314** can abut or rest against lip **32** or angled side wall **40** depending on the type of base (e.g. **10a**, **10b**, **10c**) the accessory **30** is magnetically connected to.

The accessory could also be in the form of a number, such as accessory **300a** as shown
20 in **Figure 23**. The shank **310a** is generally oval shaped with end face **314a** and protruding accessory magnet **316a** to act as a boss. Opposite end face **413a** is indicia **318**. The indicia **318** is shown in the form of number four, but any indicia could be used including numerical, shape, colour or pictorial indicia. Similar to accessory **300**, the protruding
25 section of the accessory magnet **316a** can be received in the receptacle **30** and is magnetically coupled or connected to a second magnet **20** associated with the receptacle **30**.

The magnetic connection between the accessory e.g. **300** and **300a** and the second
30 magnet **20** associated with the receptacle **30** is such that the accessory is biased towards being retained in the receptacle but can be removed and swapped as required by a user.

Another embodiment of a base **100** will now be described with reference to **Figures 9-18**. The base **100** can be considered as forming a second base component, or lower or
35 bottom base component, for a base assembly. The base **100** has a body component **102**, a disc component **104** and dial component **106**.

- 22 -

The body component **102** is generally in the form of a truncated cone having a diameter greater than its height. The body component **102** has first side in the form of upper body portion **113** having a planar abutment surface **112**. A side wall **124** extends generally downwards from the abutment surface **112**, and a second side in the form of base surface **110** extends radially inwards as a flange from the side wall **124**. In the embodiment shown in **Figures 9-12**, the base surface **110** is provided with indicia in the form of numbers **120**, but could be any shape, pattern, colour, and so on. However, indicia are not required on the base surface **110** in all embodiments. A circular cavity **128** is formed on an underside of the body component **102** between the upper body portion and side wall **124** and opens out at the base surface **110**. The cavity **128** may have a depth of about 2.5 mm to about 4 mm. The cavity **128** is provided with a track **126** that is inset into the upper body portion **113**. The track **126** may have a width of about 3.5 mm to about 4.5 mm.

The cavity **128** is also provided with a recess in the form of pocket **118**. The pocket **118** is axially aligned with axis **117** and is defined by pocket wall **116**. The pocket wall **116** has an end face **119**. The pocket **118** may have an internal diameter of about 3.0 mm, and a depth of about 0.5 mm to about 0.8 mm. In an embodiment, the pocket **118** has a depth of about 0.65 mm. In an embodiment, base magnet **138** does not abut or touch an internal surface of the pocket **118** during normal use. However, during use of the base **100** as described with reference to **Figure 16** the base magnet **138** may incidentally touch the internal surface of the pocket **118**.

The body component **102** has a first magnet in the form of body magnet **122**. In an embodiment, body magnet **122** is aligned with an axis **117** of the body component **102**. A distal portion of the body magnet **122** protrudes past the abutment surface **112** so as to act as a boss to assist with connection with base **10/10a/10b** as is described in more detail below with reference to **Figure 19** and **Figure 20**. In an embodiment, the body magnet **122** protrudes about 0.3 mm to about 0.7 mm from the abutment surface **112**. A diameter of the body magnet **122** may be about 4.0 mm to about 4.5 mm. For example, in an embodiment a diameter of the body magnet **122** may be about 4.2 mm.

The dial component **106** will now be described with reference to **Figures 13-14**. The dial component **106** has a body portion **130** and an arm **132** extending generally away from the body portion **130** that terminates at a point **133**. The arm is configured to overhand the disc component **104**. In an embodiment, and as best seen in **Figure 18**, the dial **106b** can

- 23 -

have an arm **132b** provided with a sighting aperture **140** that indicia **152** from the ring **105** can be viewed. The sighting aperture **140** acts in place of point **133**. In an embodiment, the body portion **130** also has an indicium **134**. The indicium **134** is shown as a heart logo, but could be a number **134a** as seen in **Figure 17**, or any other shape or colour. The
5 indicium is inset or stamped into the body portion **130**.

A number of protrusions **136** extend radially away from the body portion **130** at a side opposite the arm **132**. In an embodiment, the protrusions **136** are sized to overhand the disc component **104** as described below with reference to **Figure 16**.

10 The body portion **130** is also provided with a third base magnet in the form of dial magnet **138** (see **Figure 13(B)**). The dial magnet **138** is seated in dial recess **139** and a portion of the dial magnet **138** protrudes outward past or beyond a dial abutment surface **137**. The protrusion of dial magnet **138** allows it to act as a boss to assist with locating the dial **106**
15 relative the body component **102**. In an embodiment, the dial magnet protrudes from the dial abutment surface **137** by about 0.3 mm to about 0.7 mm, such as about 0.4 mm.

The base **100** also has a disc component **104** in the form of ring **105** (see **Figures 14-15**). Ring **105** has a lower side **150** that is generally provided with indicia. The indicia in
20 **Figures 14-15** is in the form of numbers **152**, but the indicia could be provided as any shape, symbol, colour, and so on. The ring **105** has a central aperture **152** that can receive a central portion of the dial **106**. In this way, the ring **105** is an annular disc. A diameter of the central aperture **152** may range from about 8 mm to about 12 mm, such as about 10.5 mm.

25 The ring **105** is provided with an upper side **135**, and a lower side **152** that is parallel to upper side **135**. The lower side **152** is provided with a set of second magnets in the form of ring magnets **156**. In the embodiment shown in **Figure 15**, the ring **105** is provided with four ring magnets **156a**, **156b**, **156c** and **156d**. Each of the ring magnets **156** may be
30 received in a seat in the ring **105**. The ring magnets **156a**, **156b**, **156c** and **156d** are equidistantly spaced around the ring **105**.

With reference to **Figure 16**, the ring **105** can be received in the cavity **128** such that ring magnets **156a**, **156b**, **156c** and **156d** are received in track **126**. In use the ring magnets
35 **156a**, **156b**, **156c** and **156d** are slidable along a floor of the track **126** but are depicted in **Figure 16** as being spaced therefrom for clarity purposes only. The ring **105** is retainable

- 24 -

in the cavity **128** by magnetic interaction of the ring magnets **156a**, **156b**, **156c** and **156d** and the body magnet **122**, as shown by dashed line **162**. The magnetic interaction of ring magnets **156a**, **156b**, **156c** and **156d** with the body magnet **122** is such that a user can selectively remove the ring **105** from the cavity **128** when required. The body portion **130**
5 of the dial **106** can pass through the central aperture **154** of the ring **105** so that a distal end of the dial magnet **138** is received in pocket **118** and the dial abutment surface **137** abuts end face **119**. The dial **106** is retained in the cavity **128** by magnetic interaction of the dial magnet **138** with the body magnet **122** as shown by dashed line **160**. However, the magnetic interaction of the dial magnet **138** with the body magnet **122** is such that a
10 user can selectively remove the dial **106** from the cavity **128** when required.

The magnetic interaction **162** between the disc **104** and the body component **102**, and the magnetic interaction **160** between the dial **106** and body component **102**, enables the dial **106** and the ring **105** to be rotatable about axis **117** independently of one another such
15 that the dial **106** is able to point to specific numbers **152** on the ring **105**. Either the ring **105** and/or the dial **106** can be rotated to change the number (indicium) selection of the dial **106** relative the ring **105**.

A base assembly **200** will now be described with reference to **Figures 19-20**. The
20 embodiment of the base assembly **200** shown in **Figures 19-20** includes base **10a** as an upper component **202** and base **100** as a lower component **204**. However, the upper component **202** could be any one of base **10**, **10a** and **10b**.

In assembly **200**, a distal end of the body magnet **122** from the lower component **204** (i.e. base **100**) acts like a boss or locator pin and is received in component receiving cavity **27**
25 in the upper component **202** (i.e. base **10a**) such that the axis **17** of the upper component **202** and axis **117** of the lower component **204** are aligned. At the same time, the abutment surface **112** from the lower component **204** abuts or rests against lower surface **22**. The abutment surface **112** and the lower surface **22** can rotate and slide relatively past one
30 another about axis **17/117**. The upper component **202** and lower component **204** can rotate relative one another about axis **17**.

Having the distal body magnet **122** be received in component receiving cavity **27** helps to maintain axial alignment of the upper component **202** and lower component **204**. Magnetic
35 interaction **212** between the dial magnet **138**, body magnet **122** and third magnet **48** magnetically connects the upper component **202** and lower component **204** together such

- 25 -

that the upper component **202** and lower component **204** form the assembly **200**. If base **10a** is replaced with base **10**, the magnetic interaction **212** is between the dial magnet **138**, body magnet **122** and first magnet **16**. Therefore, the magnetic interaction **212** is between the dial magnet **138**, body magnet **122** and the upper component **202**.

5

In assembly **200**, the disc magnets **156** from the lower component **204** and the set of second magnets **20** from the upper component **202** are approximately axially aligned such that the disc magnets **156** and second set of magnets **20** are approximately stacked on top of one another. The disc magnets **156** and second set of magnets **20** are also
10 magnetically connected as shown by magnetic interaction **210**. Due to magnetic interaction **210**, any relative rotation of the upper component **202** and the lower component **204** causes the disc **104** to rotate in the cavity **128**. However, such rotation does not cause the dial **106** to rotate. Therefore, relative rotation of the upper component **202** and lower component **204** causes the disc **104** to rotate relative the lower component
15 **204**. Specifically, relative rotation of the upper component **202** and lower component **204** causes the disc **104** to rotate relative the dial **106**, thereby changing the number (indicium) selection of the dial **106** relative the disc **104**. Such action allows a user to record a change in a condition such as health of a character positioned on top of the assembly **200** by simply rotating the upper component **202** relative the lower component **204**.

20

The magnetic interactions **210** and **212** are such that the assembly **200** can be lifted and moved as a single unit without worry of the upper component **202** and lower component **204** from separating, but still allow a user to separate the upper component **202** from the lower component **204** should they wish to change the upper component **202** and/or lower
25 component **204**.

Having the indicia **152** located on a bottom of the assembly whilst still allowing easy selection of specific indicium helps a user to easily keep track of character conditions without the need to use tiles or similar indicators that are placed on a playing surface. This
30 helps to remove clutter from the playing surface and extends the role-playing game in three dimensions, adding to the visual experience of the game. This experience is further emphasised once an accessory **300** such as a spell is connected to the base **10**, **10a** or **10b** (i.e. upper component **202**). The lower component **204** may also act as a random number generator to help randomise encounters, the behaviours of non-player characters
35 (NPCs) or indicate what rarity a treasure may be and type of item when killing a monster with reference against a loot table.

- 26 -

Now referring to **Figures 21-22**, the present disclosure also provides an adaptor **400**. In use, the adaptor **400** is secured to an underside of a miniature figurine (not shown). The adaptor **400** has a plate **410** which in the embodiment shown in **Figures 21-22** is circular.
5 However, the plate **410** could be of any polygon shape or form. The plate **410** has a central recess in the form of through hole **412** that can receive a first magnet in the form of central magnet **414** as shown in **Figure 22**. The central magnet **414** is inset relative face **424** to define adaptor recess **426**. Adaptor recess **426** can receive first magnet **16** from base **10**, **10a** or **10b**. In the embodiment shown in **Figure 21-22**, face **424** is a lower side
10 of the adaptor.

The plate **410** has several recesses **416**, which in the embodiment shown is four recesses **416a**, **416b**, **416c** and **416d**. The recesses **416a**, **416b**, **416c** and **416d** are circumferentially arranged around the plate **410**. In an embodiment, the recesses **416** are each provided with an open side **418**. However, in an embodiment, sides of the recesses
15 **416** are closed. The recesses **416** are sized to receive a respective second magnet in the form of magnet **424** (see **Figure 22**).

The adaptor **400** also has reinforcing members **418** that extend radially outwards from through hole **412** to the recesses **416**. The reinforcing members help to provide stiffness to the adaptor **400**. They may also provide a cavity to account for or hide manufacturing defects such as, for example, locations for injection moulding. However, the reinforcing members **418** are not required in all embodiments. For example, the adaptor **400** may be of a sufficient thickness where the reinforcing members **418** are not required.
25

In use, the adaptor **400** would be secured to an underside of a miniature figurine. The miniature figurine would then be placed on top of base **10**, **10a** or **10b** and a distal end of the first magnet **16** would be received in the adaptor recess **426** and the first magnet **16** and central magnet **414** would magnetically connect to one another to secure the
30 miniature figurine to the base **10**, **10a** or **10b**. The magnetic connection is such that a user can remove the miniature figurine from the base **10**, **10a** or **10b** when needed, but the base and miniature figurine can be moved as a single unit without worry of the miniature figurine falling off the base **10**, **10a** or **10b**. The base adaptor **400** could also be secured to the base **100** by placing the distal portion of base magnet **122** into the adaptor recess **426**
35 such that the magnetic interaction between the base magnet **122** and central magnet **414** couple the base and adaptor **400** together.

- 27 -

In an embodiment, all magnets are axially magnetized disc magnets.

Another embodiment of a base assembly **600** will now be described with reference to
5 **Figures 24-28**. The embodiment of the base assembly **600** shown in **Figures 24-28**
includes an upper component assembly **605** comprising first **610**, second **615**, and third
620 components, as shown more clearly in **Figures 26** (top-down exploded perspective
view), **27** (bottom-up exploded perspective view) and **28** (exploded cross-sectional view).
The embodiment of the base assembly **600** further comprises a lower component
10 assembly **100'** which magnetically associates or assembles with the lower side of the
upper component assembly **605**, specifically, the lower sides of the third component **620**.

The embodiment of the lower component assembly **100'** is substantially similar to the
base **100** described above and as shown in **Figures 9 to 16**. Like reference numerals are
15 retained in **Figures 24-28** to denote like features for the embodiment of the lower
component assembly **100'** shown. However, the embodiment of the lower component
100' differs from base **100** in the body component **102** of the lower component **100'**
comprising an annular lip **733** (see **Figures 27** and **28**) that enables the lower component
to sit upon a surface in a manner that provides sufficient clearance or space (to avoid
20 interference) from the surface upon which the annular lip **735** sits to the disc **104** and dial
106 components, and/or enables the indicia **120** when provided in an embossed form as
shown in **Figure 27** to be held clear of the supporting surface.

The first component **610** has a body in the form of disk **625**. Although the body is
25 represented as disc **625**, it could be embodied in other forms, such as a triangle, square,
pentagon, or any other polygon shape. The disc **625** has a top portion **626** having an
upper surface **628** on which a miniature figurine can be placed (not shown in **Figures 24-**
28, but see **Figure 33** showing a figurine **F**). A side wall **630** extends downwards and
outwards from the upper surface **628** and terminates at a lower surface **632** (see **Figure**
30 **27**). As shown in **Figure 27**, the side wall **630** is in the form of a rim that extends
circumferentially. A width of the lower surface **632** as part of the rim is around about 1.2
mm to about 1.8 mm, such as about 1.5 mm. The side wall **630** may extend
perpendicularly downwards from the upper surface **628**. The first component **610** has an
open-ended cavity **634** that opens up to a bottom or base of the first component **610** and
35 is defined by the top portion **626** and the side wall **630**. The opening of the cavity **634** is
defined by an inner diameter of the lower surface **632**. The cavity **634** may have a depth

- 28 -

extending upwards from the lower surface **632** of about 1.5 mm. A diameter of the disc **625** may range from about 10 mm to about 50 mm. In an embodiment, a diameter of the disc **625** may be about 25 mm to about 35 mm. A height of the disc **625** may be able about 3.0 mm to about 4.5 mm. The skilled reader will appreciate that the dimensions of the diameter and height of the disc **625** may be scaled up and down.

Extending from the top portion **626** down into the cavity **634** is a first magnet recess **636** (see **Figure 28**) in which a first magnet **638** can be received. The first magnet **638** is operably associated with the upper surface **628** such that a miniature figurine (eg. see **Figure 33**) placed on the upper surface **628** can magnetically interact with the first magnet **638**. The first magnet recess **636** has a cylindrical annular wall **640** that terminates at a bottom face **642**. The first magnet **638** is aligned along an axis **117** of the disc **625**, and a lower surface **644** of the first magnet **638** is offset relative the bottom face **642** so as to be inward of the bottom face **642** so as to enable a distal portion of a magnet element **670** (of the second component **615**) to be received within the lower disposed opening of the annular region defined by the cylindrical wall **640**. In an embodiment, a plane of the bottom face **642** is offset relative a plane of the lower surface **644**. In an embodiment, a plane of the bottom face **642** and a plane of the lower surface **644** are coplanar. The reverse arrangement could also be used in which the first magnet **638** projects below the bottom face **642** and is received within a shallow recess provided with the second component **615**. The skilled reader will appreciate that this connectivity or engagement can be realised a number of ways to achieve functionally equivalent configurations.

The first component **610** also has a set of second magnets **648**. In the embodiment shown in **Figures 24-28**, the first component **610** has four second magnets **648a**, **648b**, **648c** and **648d** arranged about, and offset from, the axis **117**. However, the second set of magnets **648** could have more or less than four magnets. For example, a larger base (e.g. >50mm diameter) may have five or more magnets arranged about the axis **117**. The second magnets **648a**, **648b**, **648c** and **648d** are radially offset from the axis **117** and in an embodiment are equidistantly spaced from one another. Each of the second magnets is housed in an associated recess **650a**, **650b**, **650c** or **650d** (better shown in **Figure 28**) Each recess **650** is provided in the upper portion **626** and opens out into the cavity **634**. In the embodiment shown in **Figures 24-28**, respective axes of the second magnets **648a**, **648b**, **648c** and **648d** are aligned parallel with the axis **117**. As such, the set of the second magnets **648a**, **648b**, **648c** and **648d** are arranged in a coaxial manner with the receiving cavity **636** and/or the first magnet **638**. In the first component **610**, a pole face

- 29 -

(the lower facing face) of each magnet of the second set of magnets **648** is perpendicular to the axis **117** i.e. parallel to the upper surface **628**.

5 The second component **615** has a body **660** providing an upper surface **661**. An upwardly extending annular lip **662** runs around a perimeter of the upper surface **661** having a top surface **664**, and an inner face **666** that defines an edge of the upper surface **661**. Generally coaxial with the axis **117** is a first circular shaped recess **668** for receiving a magnet **670** (shown in **Figure 28**). The first circular shaped recess **668** is dimensioned so that the proud standing distal portion of the magnet **638** can be received by the recess
10 **636** of the first component **610** when assembled with the second component **615**.

The upwardly extending annular lip **662** in part defines an outer wall **670** which extends downward so as to circumferentially surround the body **660** of the second component **615**. Extending radially outward from the outer wall **670** relative to the axis **117** are first **675a**,
15 second **675b**, and third **675c** shank portions, each of which, at respective distal portions, provides respective recesses **678a**, **678b**, and **678c** bordered by respective outward facing surfaces **679a**, **679b**, **679c**. Each of the recesses **678** are configured so as to receive respective magnets **680a**, **680b**, and **680c**. The outer shape or profile of the shank portions **675** is generally of oval (cross-sectional) shape/form, but could be other
20 shapes (eg. circular etc). The magnets **680** and the recesses **678** can both be configured so as to be of complimentary shape/profile for fitment purposes. In the embodiment shown in **Figures 24-28**, the three shank portions **675** are spaced at about 90 degrees to one another, but the skilled reader will appreciate that this spacing could be varied as desired. Furthermore, more than three shank portions **675** may be provided. As will be described
25 below, the shank portions **675** are configured to register with respective receiving cut-out sections **730** formed in the sidewall **728** of the third component **620** for keying both the second **615** and third **620** components together so that the third component **620** follows movement of the second component **615** about the axis **117** when caused by a user.

30 The body **660** of the second component **615** has a lower portion defining a lower surface **685**. The outer wall **670** transitions to the lower surface **685** via a curved or nonlinear annular transition surface **688**. Generally coaxial with the axis **117** is a second circular shaped recess **690** (see **Figures 27-28**) for receiving a magnet **724** of the third component **620**, as will be described below.

35

Opposite the second shank portion **675b**, and equispaced between the first **675a** and third

- 30 -

675c shank portions, is a body portion **695** which extends upwardly from the top surface **664** of the upwardly extending lip **662**. Within an upper disposed portion of the body portion **695**, and generally central thereof in a width dimension of the body portion, is provided a recess **700** configured for receiving a magnet (not shown) capable of being
5 placed in magnetic association with an attachment or accessory (eg. accessory **800**) as described below (with reference to **Figures 29-32**). In one embodiment, the maximum upper vertical extent of the body portion **695** does not extend more than about a height of a waist of a figurine when placed atop the upper surface **628** of the second component **615** (refer **Figure 33** exemplifying a figurine **F** placed atop an embodiment **615'** of a
10 second component used as part of a base assembly **1000** consistent with the present disclosure).

As shown in **Figures 24-27**, the extension of the body portion **695** extends generally upwardly a short distance in parallel alignment with the axis **117** before inclining/veering
15 inward toward the axis **117**. The body portion **695** also provides or carries on an outward facing surface region **695a** which, at a lower portion of said region **695a**, carries an indicium **705** as shown in **Figures 24-27**. The indicium **705** is shown as a letter "M", but could be a number as described above with reference to indicium **134**, or any other shape or colour. The indicium **705** is provided in the form of an embossment but could be inset
20 or stamped into the body portion **695**. The indicium **705** need not be provided, as shown in the embodiment **615'** shown in **Figure 32**.

The lower portion of the second component **615** can be provided with multiple magnets, as seen in an embodiment **615'** shown in **Figure 32**. As can be seen, and like the
25 configuration described in relation to the base **10** shown in **Figures 2** and **3**, the lower side of the second component **615'** comprises a second circular shaped recess **690'** (which may be configured for receiving a respective magnet (not shown) or a distal end portion of the magnet of the third component **620**) and a further set of recesses **698a**, **698b**, **698c**, **698d** for receiving respective second magnets (also not shown). The second
30 circular shaped recess **690'** is arranged generally coaxial with the axis **117**, and each of the second recesses are radially offset from the axis **117** and equispaced thereabout as shown. In an embodiment, the set of further recesses **698a**, **698b**, **698c** and **698d** are arranged in a coaxial manner with any of: the receiving cavity **668**, the first magnet **670**, the first circular shaped recess **668**, the second circular shaped recess **690**.

35

The third component **620** has a body **710** providing an upper surface **712**. An upwardly

- 31 -

extending lip **714** runs circumferentially around a perimeter of the upper surface **712** having a top inwardly disposed terminating edge **716**. Generally coaxial with the axis **117** is a circular shaped first recess **720** (formed within the body **710** and extending downward from the upper surface **712**) for receiving a first magnet **724** (shown in **Figures 26 and 28**).
5

The upper extending lip **714** in part defines an outer wall **728** which extends downward so as to circumferentially in-part surround the body **710** of the third component **620**. The upper extending lip **714** is formed having first **730a**, second **730b**, and third **730c** cut-out sections, as shown clearly in **Figure 26**. The geometry of each cut-out section **730** is configured so as to receive or be registrable with a respective or corresponding shank portion **675** of the second component when the second **615** and third **620** components are assembled together (described below). Accordingly, each cut-out section **730** is spaced at about 90 degrees to each other so as to correspond with the spacing of the shank portions **675**. Of course, different spacings and numbers of shank portions **675** and corresponding cut-out sections **730** could be used.
10
15

On the lower side of the body **710** is provided an annular recessed region **730** defined and bounded by way of an annular lower extending lip **732** provided at the lower peripheral/circumferential extent of the outer wall **728** as shown in **Figure 27**. Coaxial with the annular lower extending lip **732** (and the axis **117**), and generally flush therewith, is an annular ring **742** which provides an opening to a shallow depth recess **740** for receiving an upper portion of the magnet **122** of the lower component assembly **100'**, as will be discussed below.
20

The third component **620** also has a set of second recesses **735** for receiving respective second magnets **738**. In the embodiment shown in **Figures 24-28**, the third component **620** has four second magnets, **738a**, **738b**, **738c** and **738d** hosted in respective recesses **753a**, **753b**, **753c** **753d**. However, the second set of magnets **738** could have more or less than four magnets. For example, a larger base (e.g. >50mm diameter) may have five or more magnets arranged about the axis **117**. The second magnets **738a**, **738b**, **738c** and **738d** are radially offset from the axis **117** and in an embodiment are equidistantly spaced from one another about the axis **117**. Each recess **753** is provided in the body **660** and opens out to the annular recessed region **730**. In the embodiment shown in **Figures 24-28**, respective longitudinal axes of the second magnets **738a**, **738b**, **738c**, **738d** are aligned in parallel relation with the axis **117** (and indeed with the longitudinal axis of the
25
30
35

- 32 -

first magnet **724**) of the third component **620**. In the third component **620**, a pole face (the lower facing face) of each magnet of the second set of magnets **738** is perpendicular to the axis **117** i.e. parallel to the upper surface **712**. In an embodiment, the set of the second magnets **738a**, **738b**, **738c** and **738d** are arranged in a coaxial manner with any
5 of: the receiving cavity **720**, the first magnet **724**, annular recessed region **730**, the shallow depth recess **740**.

In assembly of base assembly **600**, a distal end of the body magnet **122** from the body component **102** acts like a boss or locator pin and is received in the shallow depth recess
10 **740** in the lower side of the body **710** of the third component **620** such that the third component **620** and the body component **102** (of the lower component assembly **100'**) are generally coaxial relative the axis **117**. At the same time, the abutment surface **112** from the body component **102** abuts or rests against the annular lower extending lip **732** of the lower side of the body **710** of the third component **620**. The abutment surface **112** and the
15 third component **620** can rotate and slide relatively past one another about axis **117**. Thus, the third component **620** and the lower component assembly **100'** can rotate relative one another about axis **117**.

Having the distal body magnet **122** received in the shallow depth recess **140** in the lower
20 side of the body **710** of the third component **620** helps to maintain axial alignment of the third component **620** and the lower component assembly **100'**. Magnetic interaction **723a** (see **Figure 28**)) between the magnet **122** and the magnet **724** magnetically connects or associates the third component **620** with the lower component assembly **100'** together.

In assembly of the base assembly **600**, the disc magnets **156** provided with the disc component **104** and the second magnets **738** associated with the third component **620** are approximately axially aligned such that the disc magnets **156** and second magnets **738** are approximately stacked on top of one another. The disc magnets **156** and second magnets **738** are also magnetically connected or associated as shown by magnetic
25 interaction **723b** (see **Figure 28**). Due to magnetic interaction **723b**, any relative rotation of the third component **620** and the lower component assembly **100'** causes the disc component **104** to rotate in the cavity **128**. However, such rotation does not cause the dial **106** to rotate. Therefore, relative rotation of the third component **620** and the body component **102** causes the disc **104** to rotate relative the body component **102**.
30 Specifically, relative rotation of the third component **620** and the body component **102** causes the disc **104** to rotate relative the dial **106**, thereby changing the number (indicium)

- 33 -

selection of the dial **106** relative the disc **104**. Such action allows a user to record a change in a condition such as, for example, health of a character positioned on top of the assembly **600** by simply rotating, or causing rotation, of the third component **620** relative the lower component assembly **100**.

5

In assembly of the base assembly **600**, the second component **615** is assembled with the third component **620** in a manner in which the shank portions **675a-675c** are caused to register and engage with respective cut-out sections **730a-730c** such that the second **615** and third **620** components may be keyed or splined together. For the embodiment shown, 10 the shank portions **675** and the cut-out sections **730** are geometrically configured so that each cut-out section **730** can snugly receive a respective shank portion **675**. In this manner, any 'play' between the second **615** and third **620** components is reduced. Accordingly, the skilled reader will understand that this keyed or splined engagement between the second **615** and third **620** components prevents relative movement to occur 15 between both components. Accordingly, movement of one of the components will cause a following movement of the other component. In use, for example, when the second component **615** is caused to be moved (eg. by a user), the third component **615** will follow, and causing, consequentially, due to the magnetic relationships/associations described above, movement of the disc component **104** in the manner previously 20 described.

Maintenance of the assembly of the second **615** and third **620** components is enabled by way of a magnetic interaction (shown as reference numeral **723c** in **Figure 28**) between the magnetic element **670** (sitting in recess **668** of the body **660** of the second **615** 25 component) and the magnetic element **724** (sitting in the recess **720** of the body **710** of the third component). As shown, a distal end portion of the magnetic element **724** that sits proud of the upper surface **712** of the third component **620** is received within the recess **690** provided on the lower surface **685** of the second component **615**, the distal end portion of the magnetic element **724** operating like a boss or locator pin ensuring coaxial 30 relation of the second **615** and third **620** components relative to the axis **117**. The magnetic interaction **723c** helps prevent separation thereby keeping the second **615** and third **620** components assembled together.

In assembly of the base assembly **600**, the lower surface **632** of the first component **610** 35 assembles with the upper surface **661** of the second component **615** in a generally coaxial manner relative the axis **117**. In this manner, the first magnetic element **638** provided

- 34 -

within the recess **636** of the first component **610** magnetically interacts (identified with reference numeral **723d** in **Figure 28**) with the magnetic element **670** provided in the recess **668** of the second component **620**. Accordingly, receipt of the distal end portion of the magnet element **670** within the annular opening defined by the cylindrical wall **642** enables the first magnetic element **670** to operate like a boss or locator pin ensuring coaxial relation of the first **610** and second **615** components relative to the axis **117**.

The magnetic interactions **723a**, **723b**, **723c**, and **723d** are such that the base assembly **600** can be lifted and moved as a single unit without worry of the constituent components **610**, **615**, **620** and lower component assembly **100'** from separating, but still allow a user to separate any of the respective constituent components, eg. separating the upper component **605** from the lower component assembly **100'** should they wish to change the upper component **605** and/or lower component assembly **100'**.

As noted above, the second component **615** may be configured so as to host a set of second magnetic elements arranged about, but offset from, the axis **117**. In this event, magnetic interactions may occur between said second set of magnetic elements (of the second component **615**) and the second magnets **648** of the first component **610** thereby strengthening the magnetic bias (over that achieved by magnetic interaction **723d**) of the first component **610** with the second component **615**. Furthermore, magnetic interactions may be established between said second set of magnetic elements (of the second component **615**) and the second magnets **738** of the third component **620**. Similarly, such magnetic interactions operate to strengthen the magnetic bias (over that achieved by magnetic interaction **723c**) of the second component **615** with the third component **620**.

Now referring to **Figures 29-30**, an accessory **800** is shown. For the embodiment shown, the accessory **800** is configured for attachment with the second component **615** (as shown, for example, in **Figures 31-32**) and serves, in one form for example, as a template used in conjunction with a generally grid-based system to define spell impact of, for example, a creature or player. In one form, for example, various spells with different properties/characteristics (eg. accessories exemplifying lightning bolts(s) or other forms) can be associated or affixed with the accessory **800** (eg. at different locations/positions of the accessory **800**) to represent corresponding spell power/strength, eg. size, colour, reach etc (or other properties or characteristics). **Figure 29** shows a perspective view of a first side **S1** (front, or upward facing side during use or game play, as shown in **Figure 31**) of the accessory **800**, and **Figure 30** shows a perspective view of its second side **S2** (rear

- 35 -

side, or downward facing side during use or game play).

The accessory **800** is generally of triangular (being of a wedge like segment) planar web like lattice form having an apex region **804** with first **806** and second **808** straight edge defining elements that extend away from the apex region **804** in a fan like manner and which join with a third arc shaped edge defining element **810** in the manner shown. Intermediate the first **806** and second **808** edge defining elements is a spine assembly comprising parallel aligned first **812** and second **814** straight spine elements which extend from the apex region **804** so as to join with, and extend beyond, the third edge defining element **810**. The extended portions of the first **806** and second **808** edge defining elements are joined together by way of element **818** thereby defining a distal region **816** as shown. Extending between the first edge defining element **806** and first spine element **812** in an arc shaped manner are elements **820a**, **820b**, **820c**, as shown. Similarly, extending between the second edge defining element **808** and second spine element **814** in an arc shaped manner are elements **822a**, **822b**, **822c**, as shown. The first **812** and second **814** spine elements are joined at spaced locations from the apex region **804** by tab like portions **824a-824e** – with tab like portion **824e** formed so as to help define the apex region **804** and which joins, and closes between, proximally provided ends of each of the first **806**, second **808** edge defining elements and the first **812**, second **814** spine elements. The arrangement of the latter described elements defining the accessory **800** operate to provide a triangular web like lattice structure with the joining of the constituent elements defining adjacently disposed interstices, as shown. As will be described, in use, the accessory **800** is configured so as to be attachable with the body portion **695** of the second component **615**, as shown in **Figures 31-32**.

Portions of the accessory **800** on either or both of its first **S1** and second **S2** sides may be provided with indicia, for example, roman numeral numbers **830a**, **830b** and star shapes **830d** (provided on the first side **S1** as recessed or impressed features) as shown in **Figure 29**, and lettering **830c** and further star shapes **830d** (also provided on the second side **S2** as recessed or impressed features). It will be appreciated that the indicia could be provided either as recessed/impressed or embossed features. Tab like portions **824** are shaped so as to provide sufficient space for indicia to be provided thereon.

With reference to **Figure 30**, on the side **S2** of the accessory **800**, a plurality of recesses **826** is provided. In the form shown, each recess **826** is of circular form and configured so as to be receivable of a respective magnet element (not shown) so that, in one form of

- 36 -

use, one or more further accessories (for example, accessory **900** shown in **Figures 36-37**) can be magnetically associated (when the further accessory **900** is carrying or hosting a magnetically compatible magnet element) with the accessory **800** by way of attachment to a location or region on side **S1** of the accessory **800** that corresponds with a magnet hosting recess **826**. The position of each recess **826** is generally at the intersection or areas where the elements of the accessory **800** join with one another. The position of each recess **826** may be informed or have significance due to the nature of the accessory **800** and its intended function in a role-playing game. It will be understood by the skilled reader that the magnetic association or connection between the accessory **800** and the further accessories (**900**) is such that the relevant further accessory (**900**) is biased towards being retained with the accessory **800** but can be removed and swapped as required by a user.

Specifically, recesses **826a** and **826b** are provided on the second side **S2** of respective first **806** and second **808** edge defining elements and are receivable of commensurately sized magnets (not shown). Recesses **826d** are provided on the second side **S2** of the first **812** and second **814** parallel aligned spine elements and are receivable of commensurately sized magnets (not shown). Recesses **826e** are formed in the second side **S2** of respective tab like portions **824a-e** and positioned generally intermediate the first **812** and second **814** parallel aligned spine elements, and are receivable of commensurately sized magnets (not shown). Recesses **826f** are provided on the second side **S2** and circumferentially outward of, and adjacent to, respective indicia **830d** as shown. The skilled reader will appreciate that the distribution of the recesses/magnets across the accessory **800** is to provide multiple locations where various accessories can be magnetically associated with the accessory as might be desired for game play. Accordingly, the distribution described here can be readily varied as might be desired for a given game

Corner regions defined by the intersection between the first **806** and second **808** edge defining elements and respective ends of the third edge defining element **810** also host respective recesses **826g** which may be used for receiving respective commensurately sized magnets. Recesses **826g** are sized larger than recesses **826a-f** so as to accommodate optional supports or support arrangements to assist in countering the accessory **800** from tipping, which may become an issue when increasing the range or outward/distal reach of the template and/or the application of additional spell effects, eg. other types of accessories such as lightning bolts for example. Additionally, the accessory

- 37 -

800 could be configured to incorporate other extensions or accessories, eg. a range of cone shape(s) exhibited could be extended or shape altered, and subsequent spell damage implied by a creature or player in the given areas overlapping the miniatures or grid residing directly underneath.

5

The apex region **804** comprises an attachment tab **835** configured for enabling attachment of the accessory **800** with the body portion **695** of the second component **615**, as shown in **Figure 31**. The attachment tab **835** comprises a first side **835a** that is shaped in a substantially complementary manner to a portion of the shape of the outward facing surface region **695a** of the body portion **695**, the respective complementary shapes providing surfaces that come together (via magnetic association as described below) when the accessory **800** is attached with the second component **615**. On the first side **S1**, the attachment tab **835** hosts a recess **826h** for receiving a respective commensurately sized magnet (which may operate to assist in the magnetic interaction between the accessory **800** and the body portion **695** of the second component **615** as will be described below)

10

15

Figure 30 provides an inset image showing a close-up perspective view looking substantially onto the first side **835a** of the attachment tab **835**, showing first **835b** and second **835c** body portions having respective faces that form the first side **835a**, and which are at an angle to each other as shown. Each first **835b** and second **835c** body portion hosts a respective recess **827b** and **827c**. Broadly, the recess **827c** hosts a respective magnet (not shown) that is used to magnetically interact with the magnet that sits in the recess **700** provided in the body portion **695** of the second component **615**. As can be seen, the angle and geometry of the respective faces forming the first side **835a** of the first **835b** and second **835c** body portions is configured so as to sit flush against the outward facing surface region **695a** of the body portion **695** when the accessory is (via magnetic interaction) attached therewith. In some embodiments, the recess **827b** may host a magnet to assist in the magnet association of the accessory **800** with the body portion **695**. In some embodiments, the recess **827b** may be dimensioned as to be able to receive or accommodate the indicium **705** that is provided on the body portion **695** so as to enable flush sitting of the respective corresponding surfaces. A lower most surface **835d** of the attachment tab **835** may sit against the top edge of the upper extending lip **714** of the third component **620** so as to assist in secure/stable attachment of the accessory **800** with the second component **615** (see **Figure 33** showing an embodiment **615''** of the second component attached with the accessory **800**). **Figures 31** (from

20

25

30

35

- 38 -

above) and **32** (from below) show perspective views illustrating how the accessory **800** engages with another embodiment of the body portion **695'** that is provided with another embodiment of the second component **615'** formed consistent with the second component **615** of the base assembly **600** shown in **Figures 24 to 28**.

5

As noted above, it will be appreciated that for the second component **615'** shown in **Figures 31 to 32**, the lower side of the second component **615'** comprises the first recess **690'** for receiving a respective first magnet (not shown) and the second set of recesses **698a, 698b, 698c, 698d** receive respective second magnets (also not shown).

10

Now referring to **Figures 33-35**, an embodiment **1000** of a base assembly configured consistent with the present disclosure involving another embodiment of a second component **615''** (in which a figurine **F** is placed in magnetic association with the upper portion of the second component **615''**) assembled with another embodiment a third component **620''**. Each of the second **615''** and third **620''** components are arranged consistent with analogous components described above in relation to the base assembly **600**. The third component **620''** is assembled with another embodiment of the lower component assembly **1010** – shown in perspective form at the lower portion of **Figure 33**. The lower component assembly **1010** comprises a first **1012** and second **1014** bodies which assemble together in the manner shown in **Figure 33**. The first body **1012** comprises an upper surface **1016**. Generally coaxial about the axis **117** is an aperture **1013** (see **Figure 34**) through which a distal portion of a magnet element **1018** (hosted in a recess formed in the body **1014**) is received therethrough when the first **1012** and second **1014** bodies are assembled. The first body **1012** comprises a lower extending annular rim portion **1020**, the outward facing periphery of which is provided with a plurality of equispaced cut-out portions **1022** as shown. The lower extending annular rim portion **1020** is formed so as to define a cavity region **1024** (see **Figure 35**) that receives the second body **1014** when the first **1012** and second **1014** bodies are assembled together. As can be seen in **Figure 34**, the second body **1014** provides four recesses **1030a, 1030b, 1030c, 1030d** that are equispaced about, and offset from, the axis **117**. Each of the recesses **1030** may be used to host or accommodate an accessory that used as part of the role-playing game. Such an accessory may be, for example, a near field communication (NFC) tag or chip or a NTAG® 424 DNA tag (as described below) that operates as an element or device of the game. The skilled reader will appreciate that any number of recesses **1030** could be used, for example, only one recess. Furthermore, the overall shape or form of the lower component assembly **1010** could be any circular or

35

- 39 -

polygonal shape/profile, and or configured so as to be, at least in part, complimentary or compatible with the shape of the third component **620/620''**.

Now referring to **Figures 36-37**, an accessory **900** is shown in a form representative of a lightning bolt. The accessory **900** comprises a body **904** that is configured so as to provide a plurality of apexes **906** spaced from another by way of respective connecting elements **908** in a manner that represents a caricaturised form of a lightning bolt.

The body **904** of the accessory **900** provides an annular body portion **910** that hosts a recess **912** configured receivable of a magnetic element (not shown) which enables the accessory **900** to be associable with, for example, the accessory **800** – for example, at or near a selected location (or within magnetic attractional range) on the first side **S1** of the accessory corresponding to a magnet hosted by a respective recess **826** provided in the second side **S2**. The magnetic connection between the further accessory **900** and the accessory **800** is such that the accessory **900** is biased towards being retained with the accessory **800** but can be removed and swapped as required by a user. Of course, the accessory **900** can be shaped or styled as needed while being provided with a suitable body portion **910** for hosting a respective magnet element for attachment purposes. The accessory **900** may be formed to be any shape/profile, and/or comprises any number of recesses for hosting respective magnetic elements as required (eg. for the relevant game etc).

Spinner assembly 2000

With reference to **Figures 38-44**, an embodiment of a spinner assembly **2000** is shown. With reference to **Figure 38**, the spinner assembly **2000** comprises a lower component **2005** and a rotatable component **2010**. While optional, in some embodiments, the spinner assembly **2000** may comprise a cover component **2018**. **Figure 39** shows a perspective cross-section view taken along section plane A1-A2 identified in **Figure 38** showing the assembly arrangement of the components.

With reference to **Figure 40**, three views of the lower component **2005** are shown in which (a) is a view from above, (b) is a view from below, and (c) is a cross-section taken along section plane A1-A2 as identified in **Figure 40(a)**. The lower component **2005** is formed having a generally planar body **2026** of circular shape coaxial with an axis **X**. The planar body **2026** has an upper side **2026a** providing an upper surface **2028**, and a lower side **2026b** providing a lower surface **2030**. At the periphery of the planar body **2026** are three

- 40 -

downward extending annular lip segments **2032a-c**, **2032c**. At terminal ends of the lip **2032a**, **2032c** are circular shaped feet-like supports **2034a**, **2034c** respectively, which support the lower component **2005** when placed on a surface; and mid-length of the lip segment **2032b** is circular shaped support **2034b**. The circular supports **2034** extend
5 down the same distance as the respective lip segments **2032**. Each of the circular shaped supports **2034** comprise respective circular recesses **2036** as shown. Each of the recesses **2036** may seat respective magnets **2037**, which magnetically interact with magnets **3042** seated in recesses **3040** of the cover **2018**, as shown in **Figure 43(c)**.

10 Extending coaxially with the axis **X** from the upper surface **2028** is a projection **2038**. For the case shown, the distal end of the projection **2038** is shaped conically having a tip or apex portion **2038a**. It will be appreciated that the shaping of the tip portion **2038a** is not essential.

15 The planar body **2026** is provided with an annular shaped recess **2040** spaced inward of the periphery of the body **2026**. The purpose of the annular shaped recess **2040** is to receive a copper coil (not shown) from an inductive power transfer arrangement. In this manner, one or more electrical components (e.g., a LED) positioned with the rotatable component **2010** can be powered while rotating. Positioning of the copper coil within the
20 annular shaped recess **2040** allows the coil to sit below or flush with the surface of the lower component **2005** so as to avoid or mitigate interference with rotation of the rotational component **2010**.

A further annular shaped recess **2041** is provided at the periphery of the planar body
25 **2026**, and extends from the upper side of the circular shaped support **2034c** to the circular shaped support **2034b**, and through the circular shaped support **2034a**. The purpose of the annular shaped recess **2041** is to provide a landing surface for the lower annular rim **3036** of the frame component **2018** and enabling registration of **3040** with **2034**, as shown in **Figure 43(c)**.

30 With specific reference to **Figure 40(b)**, a set of first recesses **2042** is provided in the lower side **2026b** of the planar body **2026** as shown. The set of first recesses **2042** is arranged in coaxial relation with the axis **X**. The set of first recesses **2042** respectively seat a set of first magnets **2044**. The purpose of the set of first magnets **2044** is to interact
35 with a set of second magnets **2062** provided with the lower part **2010a** of the rotatable component **2010**, as will be described below. In some embodiments, the set of first

- 41 -

magnets **2044** may comprise one or a plurality of magnets. In some embodiments, the set of second magnets **2062** may comprise one or a plurality of magnets.

5 With reference to **Figures 41** and **42**, the rotatable component **2010** is shown. As noted, in some embodiments the rotatable component **2010** may be provided as a single piece body, however, this need not be the case. For the embodiment of the rotatable component **2010** shown, a two-part assembly working a lower part **2010a** and an upper part **2010b** is provided. Both the lower **2010a** and the upper **2010b** parts are formed so as to be assembled together in the manner shown in **Figures 39** and **44**.

10

With reference first to **Figure 41**, three views of the lower part **2010a** of the rotatable component **2010** are shown in which (a) is a view from above, (b) is a view from below, and (c) is a cross-section taken along section plane A1-A2 as identified in **Figure 41(a)**.

15 The lower part **2010a** of the rotatable component **2010** comprises a generally circular shaped body **2050** having upper **2050a** and lower **2050b** sides. The lower side **2050b** of the body **2050** comprises first **2052** and second **2054** recesses which extend inwards of the body **2050**. The first **2052** and second **2054** recesses are formed coaxial with the axis **X**. The first recess **2052** is separated from the second recess **2054** by an annular wall
20 **2056**. The first recess **2052** is configured so as to be receivable of the shaft **2038** of the lower part **2010a** of the rotatable component **2010**. Furthermore, the inward end of the first recess **2052** is shaped in a conical manner (**2058**) as shown in **Figure 41(c)**, in which a central apex **2058a** of the cone is configured so as to, in use, register with the distal tip **2038a** of the distal end of the projection **2038**. In use, the first recess **2052** is configured
25 so as to receive the projection **2038** so as to rotatably support the rotatable component **2010** when assembled with the upper part **2010b**. In this manner, the rotatable component **2010** is able to spin relative to the lower component **2005**.

It will be appreciated that the first recess **2052** may be dimensioned so as to be receivable
30 of, for example, a bearing module, which bearing module engages with the projection **2038** for the purpose of enabling supportive rotation of the rotatable component **2010**. The skilled reader will appreciate that various solutions can be used to facilitate rotation of the rotatable component consistent with the present disclosure.

35 In some instances, the rotatable component **2010** may be used to slow or help contribute to the stabilisation of the gyroscopic motion that may be incurred when rotated. In some

- 42 -

embodiments the distal tip **2038a** may not touch the central apex **2058a**. In some embodiments the central apex **2058a** may consist of a flat, pointed or circular cavity.

5 The top of the projection **2038** may be substantially flat, pointed, domed, circular, oval, hemispherical etc. The rotatable component **2010** may or may not include a bearing that can be inserted into the first recess or **2052**. The bearing and/or pointed projected **2038** may be used to assist in the rotation of the rotatable component **2010**. In some instances, the tip of the projection **2038** may or may not meet the inward end or roof of the first recess **2052** until having been spun. The tip **2038** and/or bearing can be used to calibrate
10 the rotatable component's **2010** stability and/or spin duration, e.g. a flat inward end of the first recess **2052** creates friction, and a pointed tip keeps it centred plus reduces friction when touching (reducing load and friction). In some instances, the projection's tip **2038a** (pointed or flat) may not touch the first recess **2052**, however when it wobbles when spun, it meets the conical walls to stabilize the spin/rotation, or the flat surface meets the roof of
15 the first recess or first recess **2052**. The rotatable component **2010** may also continually reside on the top of the projection **2038** when spun, or perhaps a combination of both. Rotational spin in combination with the magnetic levitation may lift the spinner higher than the tip itself. Additionally points of contact on the bearing's bottom (flat surface) can also be used to slow and/or stabilize the planar spin and/or duration of spin.

20 With specific reference to **Figure 41(b)**, a set of second recesses **2060** is provided in the lower side **2050b** of the body **2050** as shown. The set of second recesses **2060** is arranged in coaxial relation with the axis **X**. The set of second recesses **2060** respectively seat a set of second magnets **2062**. The purpose of the set of second magnets **2062** are
25 to magnetically interact with the set of first magnets **2044** of the lower component **2005**, as described below.

The body **2050** is provided with a set of seats **2064** spaced equidistant about the periphery of the body **2050**. Each of the seats **2064** are shaped in the form of a "U" profile,
30 and which extend a small distance radially inwards of the periphery of the body **2050** toward the axis **X**, as shown in **Figures 41(a)-(c)**. In use, each of the seats **2064** are configured so as to receive a light emitting diode (LED) module, such that, when seated in a respective seat **2064**, the light of the LED faces radially outwards (relative to the axis **X**).

35 With reference to **Figure 41(a)**, the upper side **2050a** of the body **2050** provides an annular raised portion **2066** coaxial with the axis **X**. The annular raised portion comprises

- 43 -

a set of circular recesses **2068** (five shown) equidistance from each other about the axis **X**. The purpose of the set of circular recesses **2068** is to receive a respect magnet of a set of third magnets **2070** (which may comprise one or a plurality of magnets) which magnetically interact with a set of fourth magnets **3018** (which may comprise one or a plurality of magnets) that are seated in recesses **3015** provided with the upper part **2010b** of the rotatable component (described below). In this manner, the magnetic interaction between the third **2070** and fourth **3018** sets of magnets operates to assist in holding the lower **2010a** and upper **2010b** parts of the rotatable component **2010** together when assembled. The magnetic interaction between the third **2070** and fourth **3018** sets of magnets operates to also assist in keeping an alignment relative to the axis **X**. The third **2070** and fourth **3018** sets of magnets can be placed radially to minimise magnetic interference. This aids in alignment helping the magnets and seeking registration of the projections **2084** to pass through slots **2076**, also allowing the set of recessed portions **2086** to register or correspond with the set of seats **2064** formed in the lower part **2010a** that cooperate to provide a seated recess for a respective LED.

A central portion **2072** (of circular form) of the upper side **2050a** of the body **2050** comprises a generally flat surface. Intermediate a peripheral edge of the central portion **2072** and a peripheral edge of the annular raised portion **2066**, there is provided a set of slots **2076** (four shown) of arc like form. The set of slots **2076a-d** are dimensioned so as to receive a respective set of projections **2084a-d** which extend from the lower side **2050b** of the upper part **2010b** (see **Figure 42(b)**). Once respective projections **2084a-d** engage with corresponding slots **2076a-d**, the lower **2010a** and upper **2010b** parts are able to register with one another so as to assemble together in a desired manner. For example, the slots **2076a-d** and projections **2084a-d** may be formed so as to ensure that a specific relative alignment of the assembly of the lower **2010a** and upper **2010b** parts results. It will be appreciated that many different arrangements can be devised to achieve the same purpose.

In use, with the rotatable component **2010** assembled and rotatably supported by the shaft **2038**, the rotatable component **2010** is caused to be rotated or spun about the axis **X**. The relative positioning of the first **2044** and second **2062** sets of magnets can be configured to establish a number of magnetic interactions, such as for example, a levitation effect, in order to help facilitate continued rotation of the rotatable component **2010** when spun, and/or facilitate stabilisation of the component during rotation, e.g., so that it spins stably in the horizontal plane as much as possible rather than experiencing

- 44 -

'wobble' (causing the rotatable component to reduce its spin time).

In a first configuration shown in **Figure 44a-A** (and which is used for the embodiment of the spinner assembly **2000**) the set of first **2044** and second **2062** magnets are aligned
5 radially with respect to the axis **X**, and are positioned in their respective recesses so that their respective poles are oriented the same. The number of magnets in each set of first **2044** and second **2062** sets of magnets are the same. The set of first magnets **2044** are spaced inward from the radial position of the set of second magnets **2062** relative to the axis **X** as shown in **Figure 44**. With this radial offset spacing arrangement (for the
10 magnets used the radial offset spacing is about 1.3mm in the radial direction from the axis **X**, and the spacing in the vertical plane is about 1.7mm for the embodiment shown, but will vary depending on the characteristics of the magnets used) the set of second magnets **2062** magnetically interacts with the set of first magnets **2044** in way in which the magnetic interaction between an interacting pair causes both to repel each other between
15 the facing corners of the magnets (see **Figure 44a-A**). In this manner, it is considered that the magnetic field lines of the first **2044** and second **2062** magnets due to the offset nature of the positions of corresponding magnets from both first **2044** and second **2062** sets help stabilise the rotatable component **2010** in an orientation that is generally parallel with the planar form of the lower component **2005** by the resultant repelling force acting
20 on the rotatable component **2010** having a component acting upwards and a component acting outwards from the axis **X**. The interaction is symmetrical about the axis **X**. In this manner, the rotatable component **2010** has been observed to experience a levitation effect. The first **2044** and second **2062** magnets being arranged in this generally configuration is considered beneficial due to their magnetic interaction operating to keep
25 the rotatable component **2010** rotating in substantially the same plane, and the net pulling force is not downwards. Furthermore, the magnetic interaction operates to align both sets **2044, 2062** of magnets radially. In an embodiment, for the magnets used and described herein, the offset between the sets **2044, 2062** of magnets is about 1.3mm, however, this distance will vary depending on the size strength and shape of each magnet. For
30 example, size strength, shape and magnetized directions can vary. Further, different orientations relative to the axis **X** (eg. different angularity relative to/with the axis) could also alter each interaction dependent on the aforementioned.

In a second configuration shown generally in **Figure 44a-B**, the positioning of the set of
35 second magnets **2062** are spaced radially inward from the radial position of the set of first magnets **2044** relative to the axis **X**. As with the first configuration, the set of first **2044**

- 45 -

and second **2062** magnets are positioned in their respective recesses so that all their respective poles are oriented the same. In test embodiments using this radial offset spacing arrangement (for the magnets used, and the spacing in the vertical plane (which is about 1.7mm for the embodiment shown, but will vary depending on the characteristics of the magnets used) the spacing arrangement is again about 1.3mm in the radial direction from the axis **X**) the set of second magnets **2062** magnetically interacts with the set of first magnets **2044** in a way in which the magnetic interaction between an interacting pair causes both to repel each other between the facing corners of the magnets (see **Figure 44a-B**). In this manner, it is considered that the magnetic field lines of the first **2044** and second **2062** magnets due to the offset nature of the positions of corresponding magnets from both first **2044** and second **2062** sets help stabilise the rotatable component **2010** in an orientation that is generally parallel with the planar form of the lower component **2005** by the resultant repelling force acting on the rotatable component **2010** having a component acting upwards and a component that is directed inwards towards the axis **X**. The interaction is symmetrical about the axis **X**. In this manner, the rotatable component **2010** has been observed to experience a levitation effect. The first **2044** and second **2062** magnets being arranged in this generally configuration is considered beneficial due to their magnetic interaction operating to keep the rotatable component **2010** rotating in substantially the same plane, and the net pulling force is not downwards. Furthermore, the magnetic interaction operates to align both sets **2044**, **2062** of magnets radially.

In a third configuration shown generally in **Figure 44a-C**, the radial positioning of the sets of first **2044** and second **2062** magnets with respect to the axis **X** is the same (ie. the distance from each set of first **2044** and second **2062** magnets is the same). However, the set of first **2044** and second **2062** magnets are positioned in their respective recesses so that their respective poles are oriented oppositely. With this configuration, the final resting position of the first **2044** and second **2062** magnets is where the rotatable component **2010** slows to a stop/rest that is substantially between magnet positions, and not in a radial alignment as with the above described first and second configurations. That is, for example, a stable resting position of the rotatable component **2010** relative to the lower component **2005** will be where a magnet of the second set **2062** will be between adjacent magnets of the first set **2044**. With this configuration, wobble of the rotatable component **2010** has been observed when coming to a rest/stop as the magnetic interaction operates to pull or bias the rotatable component **2010** downwards. In contrast, for the above-described configurations (first and second), the magnetic interaction operates to align both

- 46 -

sets **2044**, **2062** of magnets radially.

With reference to **Figure 42**, similar views of the upper part **2010b** of the rotatable component **2010** are shown as for **Figure 41**. The upper part **2010b** of the rotatable component **2010** comprises a generally circular shaped body **2080** having upper **2080a** and lower **2080b** sides. The lower side **2080b** of the body **2080** comprises first recess **2082** which extends inwards of the body **2080**. The first recess **2082** is formed coaxial with the axis **X**. Extending from a ceiling **2082a** of the recessed region of the first recess **2082** are a set of four projections **2084a-d**. Each of the projections **2084a-d** extend circumferentially about the axis **X** at discrete lengths. As noted above, the set of projections **2084a-d** engage with the corresponding set of slots **2076** provided with the lower part **2010a** to assist in aligning the lower **2010a** and upper **2010b** parts as required when assembling the rotatable component **2010**.

As noted above in relation to the set of seats **2064** provided with the lower part **2010a**, the lower side **2080b** of the body **2080** is formed so as to provide a set of recessed portions **2086** that are spaced inward from the outermost peripheral extent of the body **2080**, and spaced about the axis **X**. The set of recessed portions **2086** are shaped so as to receive a portion of a respective LED that is, when the lower **2010a** and upper **2010b** parts are assembled together, seated in a respective seat **2064** of the lower part **2010a**. Thus, the set of recessed portions **2086** are formed so as to register or correspond with the set of seats **2064** formed in the lower part **2010a**. In this manner, when the lower **2010a** and upper **2010b** parts of the rotatable component are assembled together, each LED can be held or retained in its position. In use, this can be important when the rotatable component **2010** is rotating or initially spun where it can experience a relatively high amount of angular velocity/acceleration, which can, if not subject to a retaining/retention means, operate to cause an LED to become unseated. It will be appreciated that various means for retaining the LEDs will be devisable. For example, variance in angularity of LED can be varied. For example, different orientations relative to the axis **X** of the LEDs can vary or be varied (eg. potentially being upright, magnetic interference mitigation so as to allow sufficient power transfer from magnetic resonance etc).

The peripheral extent of the body **2080** of the upper part **2080a** is shaped reminiscent, for the embodiment shown, of an annular chamfer. In this manner, the peripheral wall of the body **2080** comprises an angled face **2090**. As can be seen, the angled face **2090** is provided with one or more sets of indicia **2095a** that is spaced equidistantly about the face

- 47 -

- 2090**. An uppermost extent of the body **2080** comprises a face **3000** which extends inwards a short distance from the edge of the angled face **2090** as shown. Similarly, the face **2090** may be provided with a plurality of indicia **2095b** that is spaced equidistantly about the face **3000**. The indicia **2095a/b** can take any form as described here. The
- 5 indicia **2095a/b** can take any form described herein. The different sets of indicia **2095a/b** may be symbols or forms that correspond with a role-playing game where the spinner assembly **2000** is used. For example, indicia **2095a** and **2095b** can represent a spell, move, action, ability, damage, condition, health, character mood, in game currency, item cost, directional movement of character, distance, status, armor etc. Furthermore, indicia
- 10 **2095a** and **2095b** can be used as a visual aid to help align components, eg. top and bottom spinner. Also, indicia **2095a** and **2095b** can be used as a reference external text or on a mobile device in relation to the corresponding indicia. In any case, **2095a** and **2095b** indicia may represent the same thing or be interchangeable.
- 15 The upper side **2080a** of the body **2080** comprises a recessed region **3005** which commences from the edge of the angled face **2090**. Extending from a floor of the recessed region **3005** is an annular wall **3008**. The annular wall **3008** is of non-uniform height about its circumference. The annular wall **3008** surrounds a generally planar circular region **3010** which is recessed deeper than the recessed region **3005**. The planar
- 20 circular region **3010** may seat an accessory device or component, such as, for example, a near field communication (NFC) tag **T** (which could be a NTAG® 424 DNA tag) or chip that operates as an element or device of a game, as described herein (see **Figures 39** and **44**). The tag **T** may enable use of the spinner assembly **2000** with the principles of the object management system **5000** described below and shown in **Figures 45** to **48**. Token
- 25 **T**, an augmented proxy assessed via electronic device, and **4900** may be used in combination to sign messages and authorise use for gameplay.

- With reference to **Figure 42(a)**, the recessed region **3005** of the body **2080** comprises a set of circular recesses **3015** (five shown) spaced equidistance from each other about the
- 30 axis **X**. The purpose of the set of circular recesses **3015** is to receive a respect magnet of a set of fourth magnets **3018** which magnetically interact with the set of third magnets **2070** that are seated in recesses **2068** provided with the upper side **2050a** of the body **2050a** of the lower part **2010a** of the rotatable component **2010** (described below). In this manner, the magnetic interaction between the third **2070** and fourth **3018** sets of magnets
- 35 operates to assist in holding the lower **2010a** and upper **2010b** parts of the rotatable component **2010** together when assembled (in the same manner as has been described

- 48 -

above).

The recessed region **3005** comprises a set of slots **3020** at its peripheral edge. The set of slots **3020** are for use as visual guides. Slots **3020** can employ similar principles as the set of projections **2084a-d** and the set of recessed portions **2086** if need be and act as a guide. Slots **3020** can reduce weight and be used to improve cosmetics/aesthetics.

The cover component **2018** is shown in **Figure 43**. Similar views of the cover component **2018** are shown as for the components of **Figures 40-42**. For the embodiment shown, the cover component **2018** is provided in the form of a shell or cage like structure which is configured to stand on the lower component **2005** (as seen clearer in **Figure 44**) provides a supporting surface on which a miniature figurine or a base (such as, for example, a base, base assembly, or spinner assembly as described above), may be placed.

As seen in **Figure 43(a)**, the cover component **2018** comprises a circular shaped planar roof **3030** having an upward extending annular lip **3032** at its periphery. The upper side of the planar roof **3030** provides a surface **3030a** upon which any of the bases or assemblies (eg. bases/base assemblies **10**, **10a**, **100**, **200**, **600**, **1000**, etc) or miniature figurines described herein can be supported. A side wall **3034** extends downward and outwards from a portion of the lip **3032** providing a shaped curved side wall as shown. As seen, the side wall **3034** does not extend wholly around the roof **3030**, but comprises a section where the side wall is open or omitted (shown at **3043** in **Figure 43(b)**). The gap or space provided by **3043** is for allowing access to the peripheral edge of the rotatable component **2010** so as to enable a user/player to spin the rotated component **2010**.

The side wall **3034** terminates with a lower annular rim **3036** which extends between circular supports **3038a**, **3038b**, **3038c**. Each of the circular supports **3038a-c** comprise respectively recesses **3040a-c**. The recesses **3040a-c** are used to seat respective magnets of a set of magnets **3042a-c**, which, when the cover component **2018** is assembled with the lower component **2005**, magnetically interact with respective magnets **2037** which seat in the recesses **2036a-c**. In this manner, when assembled, the magnetic interaction between the magnets **3042** and **2037** helps retain the cover component **2018** with the lower component **2005**.

The side wall **3034** is provided with one or more apertures or cut-outs **3044**, which can be provided at any position about the side wall **3034**. The apertures **3044** comprise slots

- 49 -

3044a and apertures **3044b**. The apertures **3044b** can be of different size. The positioning and/or geometry of the apertures **3034a/b** can be in accordance with the rule or requirements of a role-playing game. As shown in **Figure 38**, the apertures **3044a/b** may be arranged so as to register with various indicia **2095a/b** and/or the LED modules
5 provided with the rotatable component **2010**, so that the indicia can be seen, or else hidden by way of the side wall **3034**.

The apertures or cut-outs **3044** maybe removed by covering over the relevant aperture/cut-out **3044** with a cover or similar that is attachable to the side wall **3034** (using
10 any appropriate fastening means, eg. magnets). For example, a cover arrangement could be similar to a translation or rotation of a 'sliding door' arrangement often used with condiment containers.

The side wall **3034** also features a number of indicia **3046** provided at various positions
15 about the side wall. As shown in **Figure 43(a)**, the side wall is provided with different sets of indicia (identified as **3046a**, **3046b**, **3046c**, **3046d**). The indicia **3046** can take any form described herein. The different sets of indicia **3046** may be symbols or forms that correspond with a role playing game where the spinner assembly **2000** is used.

As seen in **Figure 43(c)**, a generally central location of the underside of the roof **3030**
20 comprises an annular wall **3048** extending downwards from the underside **3050** of the roof **3030**. The annular wall **3048** defines a recess region **3052** for seating of a magnet. In this manner, the magnet **3052** can be used to magnetically interact with a magnet of a miniature figurine, base, or adapter as described above, so as to help retain the miniature
25 figurine/base/adapter in position.

The interior side of the side wall **3034** comprises a set of fifth recesses **3065** which are positioned spaced above the lower annular rim **3036**, and used for seating a set of fifth magnets **3070** (which may comprise one or a plurality of magnets). The recesses **3065**
30 are spaced generally equidistant apart from each other about the side wall **3034**. The spacing of the recesses **3065** about the interior of the side wall **3034**, and consequentially the set of fifth magnets **3070**, is the same as the spacing of the seats **2064** used for seating the LEDs. In use, following the rotatable component **2010** being spun, in addition to the magnetic interaction of the first **2044** and second **2062** magnets occurring as
35 described above, the set of fifth magnets **3070** magnetically interact with the magnets provided with the LEDs so as to establish an attractive force therebetween which can be

- 50 -

further used to assist in affirmatively or stably aligning the rotatable component at a desired state of alignment as it slows to rest following rotation.

5 The interior side of the side wall **3034** adjacent where apertures or cut-outs **3044** are provided can be used to comprise or host a set of recesses **3060** positioned or spaced above the recesses **3065**. These recesses **3060** can also seat respective magnets which can be used to further assist in working with the fifth magnets **3070** to affirmatively or stably align the rotatable component **2010** as at desired state of alignment as it slows to rest following rotation. In an embodiment, the set of fifth magnets **3070** may be radially
10 offset with the first **2044** and second **2062** magnets, but to the extent they do not interfere with the gyroscopic motion/stability, or subsequent magnets they may be equidistantly spaced from. In some embodiments, only the magnets and the LEDs would be required to align the indica.

15 It will be appreciated that the side wall **3034** could instead be part of or arranged so as to be carried from or by the lower component **2005**. In such embodiments, the side wall **3034** could extend upwards from the periphery of the lower component **2005** in a so as to provide the lip **3032**. The lip **3032** could then support or provide the surface **3030a** for supporting any article or device, such as a miniature figurine, bases, accessories
20 described herein. In such embodiments, the side wall could be formed in similar forms as the side wall **3034**.

As to variations of the above, the magnets in the LEDs can be used as a substitute for the set of third magnets **3070** in the rotatable component **2010**, with fewer magnets then
25 required for use in other components of the spinner assembly **2000** to affirmatively align the rotatable component **2010** as it slows to rest. However, the magnets in the LEDs can be used in combination any of the sets of magnets if needed or beneficial.

The magnetic interaction by way of the magnets in the LED can be used in a dual purpose
30 manner to maintain the LEDs in a fixed position for accessibility in combination with the magnets on the lower **2010a** or upper **2010b** parts of the rotatable component **2010**.

Magnets may be used in various positions in the cover component **2018**, however, consideration should be given to placement so as to not compromise the planar spin or
35 rotation of the rotatable component **2010** overall.

- 51 -

LEDs can be inserted into the rotatable component **2010**. In a gaming environment, for example, LEDs may be represent 'abilities' or characteristics of a character, and so can be swapped among players (and inserted into place on the rotatable component **2010**). LED light colour can reflect/represent difficulty, rarity or level of spells. LEDs can be
5 configured to optimise the brightness of the LEDs (dampen magnetic interference with copper coil). LEDs can also be or representative of a user.

Embodiments of the spinner assembly **2000** may be embodied in the form of a base unit or assembly for use in a role playing game, a base unit or assembly for supporting a miniature figurine, a base unit or assembly for supporting a base for supporting a
10 miniature figurine, a base unit or assembly for supporting an adapter that in use is secured to an underside of a miniature figurine, all as described herein.

Any of the components described herein can be manufacturer using any usual high volume manufacturing process. In one form, a plastic injection moulding process may be
15 used. In another form, any suitable 3D printing process may be used. For example, any of the components may be made available for download and 3D printing on a home 3D printer by a user. The skilled reader will appreciate various other ways and means that any of the components describe herein can be manufactured.

20 Integration of Electronic Devices

Figure 45 shows a cross-sectional view of an embodiment of an object **10c**, taken along a section plane. The object **10c** may be in the form of a base **10c** for a miniature figurine. The miniature figurine may be connected to the object **10c**. Whilst described herein as a base **10c** in some embodiments, it will be appreciated that the base **10c** may alternatively
25 be referred to as an object. The object **10c** may be in the form of a component of a base assembly or a spinner assembly. For example, the object may be similar to, or the same as one or more of the components of one or more base assemblies, or spinner assemblies described herein. The object **10c** may be in the form of an adaptor **10c**. The adaptor **10c** may be configured to be secured to an underside of a miniature figurine.
30 Whilst described herein as an adaptor **10c** in some embodiments, it will be appreciated that the adaptor **10c** may alternatively be referred to as an object. The object **10c** may be in the form of a top base component. For example, the object may be similar to, or the same as one or more of the top base components described herein. The object **10c** may be in the form of an upper base component. For example, the object may be similar to, or
35 the same as one or more of the upper base components described herein. The object **10c** may be in the form of a bottom base component. For example, the object may be similar

- 52 -

to, or the same as one or more of the bottom base components described herein. The object **10c** may be in the form of a bottom base sub-component. For example, the object may be similar to, or the same as one or more of the bottom base sub-components described herein. The object **10c** may be in the form of an accessory. For example, the
5 object may be similar to, or the same as one or more of the accessories described herein.

The object **5020** may comprise or be in the form of the first component **610** described herein. The object **5020** may comprise or be in the form of the second component **615** (and/or variants **615'**, **615''**) described herein. The object **5020** may comprise or be in the
10 form of the third component **620** (and/or variants **620''**) described herein. The object **5020** may comprise or be in the form of the body component **102** described herein. The object **5020** may comprise or be in the form of the disc component **104** described herein. The object **5020** may comprise or be in the form of the dial component **106** described herein. The object **5020** may comprise or be in the form of the lower component assembly **1010**
15 (and/or any of its first **1012** and second **1014** constituent bodies) described herein. The object **5020** may comprise or be in the form of any embodiment of an accessory **800**, **900** or auxiliary component described herein. The object **5020** may comprise or be in the form of the spinner assembly **2000** described herein. The object **5020** may comprise or be in the form of the lower component **2005** described herein. The object **5020** may comprise or
20 be in the form of the rotatable component **2010** if provided as a single body. The object **5020** may comprise or be in the form of the lower part **2010a** of the rotatable component **2010** described herein. The object **5020** may comprise or be in the form of the upper part **2010b** of the rotatable component **2010** described herein. The object **5020** may comprise or be in the form of the cover component **2018** described herein.

25 The base **10c** comprises an electronic device **4900**. In some embodiments, the electronic device **4900** is a passive electronic device. That is, the electronic device **4900** is configured to be powered by another electronic device (not shown). In some embodiments, the electronic device **4900** may be an active electronic device. That is, the
30 electronic device **4900** may be configured to power itself for certain periods of time, without appreciable interaction from other electronic devices. In some embodiments, the electronic device **4900** is an NTAG® 424 DNA tag manufactured by NXP Semiconductors.

35 The electronic device **4900** comprises a wireless communication system (not shown). The wireless communication system comprises an antenna. The antenna is configured to

- 53 -

enable the transmission and/or receipt of radio frequency (RF) signals. The antenna is configured to enable the electronic device **4900** to receive energy from another electronic device, such as an active electronic device. Specifically, a RF signal incident to the antenna may induce a current in the antenna. The antenna is configured to communicate
5 this induced current with one or more other electrical components of the electronic device **4900**. That is, the antenna is electrically connected to one or more other electrical components of the electronic device **4900**.

The electronic device **4900** comprises a controller (not shown). The controller is
10 configured to control one or more other components of the electronic device. For example, the controller may be configured to control the transmission and receipt of data. The controller may comprise at least one processor. The controller may comprise a modulator. The modulator is configured to enable modulation of digital data into RF signals for transmission via the antenna. The modulator may be configured to enable demodulation
15 of incoming RF signals, detected by the antenna, into digital data. The modulator may be considered part of the at least one processor.

The controller may comprise memory. The memory is configured to store data that is associated with the relevant component. For example, the memory may store a unique
20 identifier (UID). The UID may be referred to as a unique identification number. That is, the UID may be a number that is unique to the particular electronic device **4900**, within the system with which the electronic device **4900** is to be used. The unique identifier may be associated with the relevant component (for example, in memory and/or in another database). The memory may store data indicative of one or more characteristics
25 associated with the relevant component. Specifically, the memory may store the unique identifier that is associated with the relevant component, data indicative of one or more of encryption keys and/or one or more software modules that are configured to be executed by the at least one processor to enable specific functionality of the electronic device **4900**. The memory may store the unique identifier and the one or more encryption keys as a
30 UID-key pair.

The memory may store program instructions that are accessible by the at least one processor. The program instructions are configured to be executed by the at least one processor to enable certain functionality of the electronic device **4900**. In particular, the
35 program instructions are configured to be executed by the at least one processor to cause the at least one processor to perform one or more of the steps of a method described

- 54 -

herein. The program instructions comprise the one or more software modules.

In response to executing one or more of the software modules, the controller may transmit transmission data. The transmission data may be associated with the data stored in the
5 memory. For example, the transmission data may comprise or be derived from the unique identifier. Alternatively, the transmission data may comprise or be derived from the data indicative of one or more characteristics associated with the relevant component. The transmission data may comprise the encryption key. The transmission data may be encrypted.

10 The base **10c** includes a recess **4902**. The recess **4902** is a recess in a side wall **24** of the base **10c**. It will, however, be appreciated that in some embodiments the recess **4902** may be elsewhere in the base **10c**. The recess **4902** is configured to receive the electronic device **4900**.

15 The electronic device **4900** is encapsulated prior to insertion into the recess **4902**. The electronic device **4900** may be encapsulated with a resin. Once encapsulated, the electronic device **4900** is inserted into the recess **4902**. The electronic device **4900** is secured within the recess **4902**. In some embodiments, the electronic device **4900** may be
20 secured within the recess **4902** using an overmoulding process. That is, a thermoplastic or elastomer may be moulded over the electronic device **4900** after it is positioned within the recess **4902**. Alternatively, a cap may be placed over the recess **4902**, thereby securing the electronic device **4900** in place. It will be appreciated that the electronic device **4900** may be secured within the recess **4902** in another way.

25 Following the manufacture of the base **10c** with the embedded electronic device **4900**, the functionality of the electronic device **4900** can be confirmed (e.g. via an external device that is configured to communicate with the electronic device **4900** wirelessly) prior to the product being shipped.

30 While the integration of the electronic device **4900** has been described with respect to the base **10c**, it will be appreciated that the electronic device **4900** may alternatively be integrated into one or more of the other components described herein in a similar way. For example, the electronic device **4900** may be integrated into one of the components of the
35 adaptor in a similar way. It will also be appreciated that the electronic device **4900** may be integrated into another object. For example, the electronic device **4900** may be built into a

- 55 -

miniature figurine itself, an item that is configured to be associated (e.g. attached to) the miniature figurine, and/or another object.

Object Management System 5000

5 The interactive gaming and collectibles industry has been significantly influenced by the advancement of technology, particularly in the area of Near Field Communication (NFC) and Radio Frequency Identification (RFID). These technologies enable objects, such as gaming miniatures, to interact with electronic devices and platforms, enhancing the overall user experience by providing dynamic content, interactive gameplay, and secure data
10 exchange. However, these systems have several limitations, such as the lack of real-time monitoring, dynamic configuration, and secure content protection.

RFID and NFC tags have limited memory and security features, restricting their application to simple tasks like identification or static content delivery. These limitations
15 have hindered the development of more advanced and interactive applications, as there is a need for higher memory capacity, dynamic content configuration, and robust security features to prevent unauthorized access or tampering.

Newer technologies such as the NTAG® 424 DNA tag enable these limitations to be
20 addressed by offering advanced features such as password protection, mutual authentication, secure messaging and tamper detection. However, there is a lack of comprehensive user interface (UI) tools that allow users to leverage these advanced features fully, configure the tags dynamically, and monitor their status in real-time.

25 Thus, there is a need for a system that provides a user-friendly interface for configuring, managing, and monitoring the NTAG® 424 DNA tags and objects incorporating electronic devices such as these tags, thereby enabling users to harness the potential of these advanced features such as secure content protection and dynamic interaction in applications such as interactive gaming, collectibles, and other NFC-enabled products.

30 **Figure 46** is a block diagram of an object management system **5000**, according to some embodiments of the present disclosure. The object management system **5000** may alternatively be referred to as system **5000**. The object management system **5000** enables user-friendly user interfaces to be provided to users of the system **5000** in relation
35 to objects that incorporate advanced electronic devices such as the NTAG® 424 DNA tag.

- 56 -

The object management system **5000** comprises a content host **5002**. The content host **5002** is a computing device. The content host **5002** may take the form of or comprise one of a number of configurations, such as a specialty computing device such as a server or an application-specific integrated circuit (ASIC), a general-purpose computer, a
5 consumer electronics device and/or a handheld electronic device. The content host **5002** may take the form of a distributed computing system, where certain tasks described herein are performed by remote processing devices that are connected via a communications network. For example, in some embodiments, the content host **5002** may be in the form of one or more computing devices that act as nodes of a distributed ledger.
10 The content host **5002** may be referred to as a content hosting system.

Referring again to **Figure 46**, the content host **5002** comprises at least one processor **5004**. Each processor **5004** of the content host **5002** may be referred to as a content host processor. The content host **5002** comprises memory **5006**. Memory **5006**
15 may be referred to as content host memory. The at least one processor **5004** is in communication with memory **5006**. The content host **5002** comprises a network interface **5008**. The network interface **5008** may be referred to as a content host network interface. The network interface **5008** enables the content host **5002** to communicate with other computing devices using one or more communication networks.

20 The at least one processor **5004** is configured to execute program instructions stored in memory **5006** to enable the functionality described herein. In other words, the program instructions are accessible by the at least one processor **5004**, and are configured to cause the at least one processor **5004** to function as described herein. In some
25 embodiments, the program instructions may be referred to as, or in the form of, program code.

The at least one processor **5004** comprises one or more microprocessors, central processing units (CPUs), application specific instruction set processors (ASIPs),
30 application specific integrated circuits (ASICs), graphics processing units (GPUs), tensor processing units (TPUs), field-programmable gate arrays (FPGAs) or other processors capable of reading and executing program instructions.

Memory **5006** may comprise one or more volatile memory types. Memory **5006** may
35 comprise one or more non-volatile memory types. For example, memory **5006** may comprise one or more of random access memory (RAM), flash memory, read-only

- 57 -

memory (ROM) and electrically erasable programmable read-only memory (EEPROM). Memory **5006** is configured to store program code accessible by the at least one processor **5004**. The program code may comprise executable program code modules. In other words, memory **5006** is configured to store executable code modules configured to be executable by the at least one processor **5004**. The executable code modules, when executed by the at least one processor **5004** cause the at least one processor **5004** to perform certain functionality, as described herein.

Memory **5006** may store a copy of object data. The object data may be as described herein. Memory **5006** may store a copy of content data. The content data may be as described herein.

The vehicle network interface **5008** may comprise a combination of network interface hardware and network interface software suitable for establishing, maintaining and facilitating communication over a relevant communication network. Examples of a suitable communication network include a cloud server network, a wired or wireless internet connection, a wireless local area network (WLAN) such as Wi-Fi (IEEE 802.11) or Zigbee (IEEE 802.15.4), a wireless wide area network (WWAN) such as cellular 4G LTE and 5G or another cellular network connection, low power wide area networks (LPWAN) such as SigFox and Lora, Bluetooth™ or other near field radio communication, and/or physical media such as a Universal Serial Bus (USB) connection.

The object management system **5000** comprises a user interface system **5010**. The user interface system **5010** may be referred to as a user interface device. The user interface system **5010** is or comprises a computing device. It will be appreciated that the user interface system **5010** may comprise one or more computing systems. The user interface system **5010** may take the form of or comprise one of a number of configurations, such as a specialty computing device such as a server or an application-specific integrated circuit (ASIC), a general-purpose computer, a consumer electronics device and/or a handheld electronic device. The user interface system **5010** is configured to provide a graphical user interface for a user. The user may be a player of a game. The user may be a vendor of a game. That is, the user may be a person or organisation that provides one or more objects and computer systems for use in a game.

The user interface system **5010** comprises a display **5012**. The display **5012** may be referred to as a user interface display. The display may be referred to as a user interface

- 58 -

system display. The display **5012** is configured to display information to a user. The display may be implemented as a heads-up display, an electroluminescent (ELD) display, a light emitting diode (LED) display, a quantum dot (QLED) display, an organic light-emitting diode (OLED) display, a liquid crystal display, a plasma screen, a cathode ray screen device, a combination of such displays or the like.

The user interface system **5010** comprises a user interface network interface **5014**. The user interface network interface **5014** may simply be referred to as a network interface. The user interface network interface **5014** may comprise a combination of network interface hardware and network interface software suitable for establishing, maintaining and facilitating communication over a relevant communication network. Examples of a suitable communication network include a cloud server network, a wired or wireless internet connection, a wireless local area network (WLAN) such as Wi-Fi (IEEE 802.11) or Zigbee (IEEE 802.15.4), a wireless wide area network (WWAN) such as cellular 4G LTE and 5G or another cellular network connection, low power wide area networks (LPWAN) such as SigFox and Lora, Bluetooth™ or other near field radio communication, and/or physical media such as a Universal Serial Bus (USB) connection.

The user interface system **5010** is configured to communicate with the content host **5002** via a communication network **5016**. In the illustrated embodiment, the communication network **5016** is the Internet.

The object management system **5000** comprises a communication device **5018**. The communication device **5018** is configured to enable bi-directional data communication with another electronic device. In particular, the communication device **5018** is configured to enable wireless communication with another electronic device. The other electronic device may be a passive electronic device.

The communication device **5018** is in communication with the user interface system **5010**. The communication device **5018** may be connected to the user interface system **5010** with a wired connection and/or a wireless connection. The communication device **5018** acts as an intermediary between the user interface system **5010** and another electronic device. Power may be supplied to the communication device **5018** from the user interface system **5010**.

The communication device **5018** comprises an antenna (not shown). The antenna is

- 59 -

configured to enable the transmission and/or receipt of radio frequency (RF) signals. The antenna is configured to enable the communication device **5018** to transmit energy to another electronic device, such as a passive electronic device. In some embodiments, the communication device **5018** comprises a plurality of antennas. Each antenna may be
5 independently controllable.

The communication device **5018** comprises a controller (not shown). The controller is configured to control one or more other components of the communication device **5018**. For example, the controller may be configured to control the transmission and receipt of
10 data. The controller may comprise at least one processor. The controller may comprise a modulator. The modulator may be configured to enable modulation of digital data into RF signals for transmission via the antenna. The modulator may be configured to enable demodulation of incoming RF signals, detected by the antenna, into digital data. The modulator may be considered part of the at least one processor.

15 The object management system **5000** comprises an object **5020**. The object **5020** may comprise or be in the form of the base **10c**. The object **5020** may comprise or be in the form of one or more of the bases described herein. The object **5020** may comprise or be in the form of one or more of the adaptors described herein. The object **5020** may
20 comprise a tabletop figurine. The object **5020** may be at least part of a miniature figurine. The object **5020** may comprise an accessory or auxiliary component for a tabletop figurine.

The object **5020** may comprise or be in the form of the first component **610** described
25 herein. The object **5020** may comprise or be in the form of the second component **615** (and/or variants **615'**, **615''**) described herein. The object **5020** may comprise or be in the form of the third component **620** (and/or variants **620''**) described herein. The object **5020** may comprise or be in the form of the body component **102** described herein. The object
30 **5020** may comprise or be in the form of the disc component **104** described herein. The object **5020** may comprise or be in the form of the dial component **106** described herein. The object **5020** may comprise or be in the form of the lower component assembly **1010** (and/or any of its first **1012** and second **1014** constituent bodies) described herein. The object **5020** may comprise or be in the form of any embodiment of an accessory **800**, **900** or auxiliary component described herein.

35 The object **5020** may comprise or be in the form of the lower component **2005** described

- 60 -

herein. The object **5020** may comprise or be in the form of the rotatable component **2010** if provided as a single body. The object **5020** may comprise or be in the form of the lower part **2010a** of the rotatable component **2010** described herein. The object **5020** may comprise or be in the form of the upper part **2010b** of the rotatable component **2010**
5 described herein. The object **5020** may comprise or be in the form of the cover component **2018** described herein.

The object **5020** comprises an electronic device **5022**. The electronic device **5022** is embedded within the object **5020**. In other words, the electronic device **5022** is integrated
10 with the object **5020**. The object **5020** comprises a recess and the electronic device **5022** is secured within the recess. The recess may, for example, be in a side wall of the object **5020**.

The electronic device **5022** is encapsulated prior to insertion into the recess. The
15 electronic device **5022** may be encapsulated with a resin. Once encapsulated, the electronic device **5022** is inserted into the recess. The electronic device **5022** is secured within the recess. In some embodiments, the electronic device **5022** may be secured within the recess using an overmoulding process. That is, a thermoplastic or elastomer may be moulded over the electronic device **5022** after it is positioned within the recess.
20 Alternatively, a cap may be placed over the recess, thereby securing the electronic device **5022** in place.

In some embodiments, the electronic device **5022** may be connected to the object **5020**. For example, the electronic device **5022** may be adhered to a surface of the object.
25

Following the manufacture of the object **5020** with the embedded electronic device **5022**, the functionality of the electronic device **5022** can be confirmed (e.g., via an external device that is configured to communicate with the electronic device **5022** wirelessly) prior to the object **5020** being shipped.
30

The electronic device **5022** comprises a communication system **5030**. The communication system **5030** is a wireless communication system. The communication system **5030** enables the electronic device **5022** to transmit data. The communication system **5030** enables the electronic device **2022** to receive data. In particular, the communication
35 system **5030** enables the electronic device **5022** to wirelessly receive and transmit data.

- 61 -

The communication system **5030** comprises an antenna (not shown). The antenna is configured to enable the transmission and/or receipt of radio frequency (RF) signals. In particular, the antenna is configured to enable the transmission and/or receipt of RF signals to and/or from the communication device **5018**. The communication device **5018** may need to be brought within a certain physical distance of the object **5020** to facilitate this communication. Specifically, the communication device **5018** is configured to bi-directionally communicate with the electronic device **5022**. Similarly, the electronic device **5022** is configured to bi-directionally communicate with the communication device **5018**.

10 The antenna is configured to enable the electronic device **5022** to receive energy from another electronic device. In particular, the antenna is configured to enable the electronic device **5022** to receive energy from the communication device **5018**. A RF signal incident to the antenna may induce a current in the antenna. The antenna communicates this induced current with one or more other electrical components of the electronic device **5022**. That is, the antenna is electrically connected to one or more other electrical components of the electronic device **5022**.

The electronic device **5022** comprises a controller **5024**. The controller **5024** controls one or more other components of the electronic device **5022**. In particular, the controller **5024** controls transmission of data. The controller **5024** also controls receipt of data. The controller **5024** controls the communication system **5030**. Specifically, the controller **5024** controls the antenna.

25 The controller **5024** comprises at least one processor **5026**. Each processor **5026** of the controller **5024** may be referred to as an electronic device processor. The controller **5024** comprises memory **5028**. Memory **5028** may be referred to as electronic device memory. Memory **5028** may be referred to as controller memory. The at least one processor **5026** is in communication with memory **5028**.

30 The at least one processor **5026** is configured to execute program instructions stored in memory **5028** to enable the functionality described herein. In other words, the program instructions are accessible by the at least one processor **5026**, and are configured to cause the at least one processor **5026** to function as described herein. In some embodiments, the program instructions may be referred to as, or in the form of, program code.

- 62 -

The at least one processor **5026** comprises one or more microprocessors, central processing units (CPUs), application specific instruction set processors (ASIPs), application specific integrated circuits (ASICs), graphics processing units (GPUs), tensor processing units (TPUs), field-programmable gate arrays (FPGAs) or other processors
5 capable of reading and executing program instructions.

The controller **5024** may comprise a modulator. The modulator may be configured to enable modulation of digital data into RF signals for transmission via the antenna. The modulator may be configured to enable demodulation of incoming RF signals, detected by
10 the antenna, into digital data. The modulator may be considered part of the at least one processor **5026**.

Memory **5028** may comprise one or more volatile memory types. Memory **5028** may comprise one or more non-volatile memory types. For example, memory **5028** may
15 comprise one or more of random access memory (RAM), flash memory, read-only memory (ROM) and electrically erasable programmable read-only memory (EEPROM). Memory **5028** is configured to store program code accessible by the at least one processor **5026**. The program code may comprise executable program code modules. In other words, memory **5028** is configured to store executable code modules configured to
20 be executable by the at least one processor **5026**. The executable code modules, when executed by the at least one processor **5026** cause the at least one processor **5026** to perform certain functionality, as described herein.

Memory **5028** is configured to store data that is associated with the object **5020**. The data
25 that is associated with the object **5020** may be referred to as object data. Therefore, memory **5028** may be considered to store object data. The object data may be stored in an encrypted form. For the purposes of this disclosure, it will be appreciated that references to object data may relate to either of the object data in an unencrypted form and the object data in an encrypted form.

30 Memory **5028** may store a unique identifier. The object data comprises the unique identifier. The unique identifier is associated with the object **5020**. For example, the unique identifier may be associated with the object **5020** in a database stored in memory **5006** of the content host **5002**. Memory **5028** stores data indicative of one or
35 more encryption keys. Memory **5028** may store one or more encryption keys. For example, memory **5028** may store a public key and a private key of a public-private key

- 63 -

pair. The one or more encryption keys are associated with the object **5020**. The one or more encryption keys may comprise the encryption key(s) required to decrypt the object data. Memory **5028** may store the unique identifier and the one or more encryption keys as a UID-key pair. That is, the object data may comprise a UID-key pair that comprises
5 the UID and the one or more encryption keys.

Memory **5028** stores data indicative of one or more characteristics associated with the object **5020**. The object data comprises the data indicative of one or more characteristics associated with the object **5020**. Memory **5028** stores a shortcode. The object data may
10 comprise the shortcode. The shortcode may be a Wordpress shortcode. The shortcode is configured to enable specific functionality. The shortcode may be in the form of a URL. A URL may comprise the shortcode. The shortcode may be inserted into the string of a URL. An example of one or more shortcodes may be [shortcode_restrict_access=video]. Such a shortcode configuration may be associated with the insertion of a video. The
15 shortcode(s) may be integrated into one or more webpages or another user interface.

The shortcode may be unique to the object **5020**. The shortcode may be dynamically generated. The shortcode may be determined using the UID. The shortcode may be determined using one or more of the encryption keys stored in memory **5028**. In other
20 words, the shortcode may be derived from one or more of the UID and the encryption keys associated with the object **5020**. The shortcode may be derived from one or more of the UID and the encryption keys associated with one or more other objects.

Memory **5028** may store a plurality of different shortcodes across its working life. Memory
25 **5028** may store a plurality of indicative shortcodes across its working life. The shortcode is associated with the object **5020**. The object data comprises the shortcode. Memory **5028** stores data indicative of a character identity that is associated with the object **5020**. The object data comprises the data indicative of a character identity that is associated with the object **5020**. Memory **5028** stores data indicative of a character type that is associated
30 with the object **5020**. The object data comprises the data indicative of a character type that is associated with the object **5020**. The object data may comprise at least part of a seed phrase. The object data may comprise an entire seed phrase. The at least part of a seed phrase may be encrypted.

35 Memory **5028** stores data indicative of a character status that is associated with the object **5020**. The object data comprises the data indicative of a character status that is

- 64 -

associated with the object **5020**. Memory **5028** stores equipment data that is associated with the object **5020**. The object data comprises the equipment data that is associated with the object **5020**. Memory **5028** stores data indicative of a skill that is associated with the object **5020**. The object data comprises the data indicative of a skill that is associated with the object **5020**.

The electronic device **5022** may comprise an NTAG® 424 DNA tag. The electronic device **5022** may be in the form of an NTAG® 424 DNA tag.

In some embodiments, the object management system **5000** comprises a plurality of objects, each with an embedded electronic device. The embedded electronic devices may be the same as or similar to the electronic device **5022** described herein.

The object management system **5000** may comprise an object interaction unit. The object interaction unit comprises integrated electronics that is configured to enable interaction with the electronic device **5022**. For example, the object interaction unit may interact with the object **5020** when the object **5020** is in its physical proximity. The communication device **5018** may comprise the object interaction unit. The communication device **5018** may be in the form of the object interaction unit.

The object interaction unit may comprise a mat. The object interaction unit may be in the form of the mat. The mat may comprise integrated electronics that is configured to interact with the electronic device **5022** when the object **5020** is placed on the mat. For example, the mat may be configured to track the physical location of the object **5020** when it is placed on the mat. In some embodiments, the communication device **5018** is in the form of a mat. That is, the communication device **5018** may comprise the mat.

The object interaction unit may comprise a mobile communication device. The mobile communication device may comprise or be in the form of a smartphone. The mobile communication device may comprise or be in the form of a headset. For example, the mobile communication device may comprise or be in the form of an augmented reality headset and/or a virtual reality headset. The mobile communication device may comprise integrated electronics that is configured to interact with the electronic device **5022** when the object **5020** is placed near the mobile communication device. For example, the mobile communication device may be configured to track the physical location of the object **5020** when it is placed near the mobile communication device. The mobile communication

- 65 -

device may comprise one or more sensors that are used to track the object **5020**. For example, the mobile communication device may comprise one or more cameras and a processor that is configured to process camera data generated by the camera(s) to identify the object **5020** within the environment of the mobile communication device. In
5 some embodiments, the communication device **5018** is in the form of a mobile communication device. That is, the communication device **5018** may comprise the mobile communication device.

10 In some embodiments, the object management system **5000** comprises an authentication device. The authentication device is portable. The authentication device may be an active electronic device. For example, the authentication device may be powered by a battery. Alternatively, the authentication device may be a passive electronic device.

15 The authentication device comprises a body. The body houses an electronic device. The electronic device of the authentication electronic device may be referred to as an authentication electronic device. The body may be referred to as a housing. The authentication electronic device is housed within the housing. The authentication electronic device may be embedded within the housing.

20 The authentication electronic device comprises a communication system. The communication system of the authentication electronic device may be referred to as an authentication communication system. The authentication communication system is a wireless communication system. The authentication communication system may be the same as, or similar to, in one or more aspects, the communication system **5030** of the
25 electronic device **5022**.

The authentication electronic device comprises an antenna. The antenna of the authentication electronic device may be referred to as an authentication antenna. The antenna is configured to enable the transmission and/or receipt of radio frequency (RF)
30 signals. In particular, the antenna is configured to enable the transmission and/or receipt of RF signals to and/or from one or more of the electronic device **5022** of the object and the communication device **5018**. The antenna may be the same as, or similar to, in one or more aspects, the antenna of the electronic device **5022**.

35 The authentication electronic device comprises a controller. The controller may be referred to as an authentication controller. The controller controls one or more other

- 66 -

components of the authentication electronic device. The authentication controller may be the same as, or similar to, in one or more aspects, the controller **5024** of the electronic device **5022**.

5 The authentication controller comprises memory. The memory of the authentication controller may be referred to as authentication controller memory. The authentication controller memory may be the same as, or similar to, in one or more aspects, the memory **5006** of the electronic device **5022**. The authentication controller memory stores authentication controller data. The authentication controller memory may store one or
10 more encryption keys. The authentication controller memory may store a seed key. That is, the authentication controller data may comprise one or more encryption keys and/or one or more seed key.

The authentication device may be configured to be worn by a user. For example, the
15 authentication device may be in the form of a ring. The authentication device may be in the form of a miniature figurine, an ebook, a book and/or a collectible card.

Method 6000

The functionality of the object management system **5000** will now be described with
20 reference to **Figure 47**. **Figure 47** is a process flow diagram of a method **6000** according to some embodiments of the present disclosure. The method **6000** may be considered a method of rendering a user interface. Where relevant, the steps of the method **6000** that are performed by one or more of the electronic device **5022**, the user interface system **5010** and the content host **5002** may be performed, at least in part, by the at least one
25 processor of the relevant computing system.

At **6002**, the communication device **5018** is moved into the physical proximity of the object **5020**. In particular, the communication device **5018** is moved into the physical proximity of the electronic device **5022** that is contained within the object **5020**.
30 Specifically, the antenna of the communication device **5018** is moved within a threshold distance of the antenna of the electronic device **5022**. The threshold distance may be less than 2cm. The communication device **5018** is powered, either by a power source such as a battery, or by the user interface system **5010**, and emits an electromagnetic field from its antenna. By moving the communication device **5018** into the physical proximity of the
35 object **5020**, the strength of the electromagnetic field emitted via the antenna is sufficient to induce a current in the electronic device **5022**. In this way, the electronic device **5022**,

- 67 -

which may not include its own independent power source, may be powered by the communication device **5018** while the communication device **5018** is within the physical proximity of the object **5020**. The electronic device **5022** activates in response to the communication device **5018** being moved into the physical proximity of the object **5020**. In
5 other words, the method **6000** comprises energising the electronic device **5022**.

One or more of the security features of the electronic device **5022** may be utilized. For example, the communication device **5018** may transmit encryption data. The communication device **5018** may transmit encryption data via its antenna. This encryption
10 data may be received by the electronic device **5022**. Specifically, this encryption data may be received by the electronic device **5022** via its antenna. In other words, the method **6000** may comprise transmitting encryption data from the communication device **5018** to the electronic device **5022**. The encryption data may, for example, comprise a decryption key. The decryption key may be configured to decrypt data stored in memory **5028** on the
15 electronic device **5022**.

In some embodiments, the electronic device **5022** may transmit encryption data. The electronic device **5022** may transmit encryption data via its antenna. This encryption data may be received by the communication device **5018**. Specifically, this encryption data
20 may be received by the communication device **5018** via its antenna. In other words, the method **6000** may comprise transmitting encryption data from the electronic device **5022** to the communication device **5018**. The encryption data may, for example, comprise a decryption key. The decryption key may be configured to decrypt data stored in memory **5028** on the electronic device **5022**. The decryption key may be configured to decrypt data
25 stored in memory **5028** on the communication device **5018**.

The electronic device **5022** may validate the encryption data. That is, the at least one processor **5024** of the electronic device **5022** may confirm that the encryption data satisfies one or more criteria. For example, the at least one processor **5024** may confirm
30 that the decryption key is valid. The at least one processor **5024** may compare the encryption data to the stored one or more encryption keys. The encryption data may be validated if at least part of the encryption data corresponds to the stored one or more encryption keys.

35 In some embodiments, the electronic device **5022** and/or the communication device **5018** use a symmetric encryption algorithm. For example, the electronic device **5022** and the

- 68 -

communication device **5018** may use the Advanced Encryption Standard (AES) to securely communicate. Specifically, the electronic device **5022** and the communication device **5018** may use AES-128. In some embodiments, the electronic device **5022** and the communication device **5018** may use a secure unique near-field communication (NFC) (SUN) message generation mechanism.

In some embodiments, the electronic device **5022** and the communication device **5018** may use a secure unique near-field communication (NFC) enabled by shared security authentication message(s) from one or more full node(s), nodes, or trusted nodes of a distributed ledger system.

As described herein, the object management system **5000** may comprise an authentication device. The authentication device may secure a connection between the electronic device **5022** and another component, such as the communication device **5018**. Specifically, the authentication device may secure a connection between the electronic device **5022** and another component, such as the communication device **5018** using unique secure near-field communication (NFC) enabled by shared security authentication message(s) from a full node(s), nodes, or trusted nodes of a distributed ledger system. The authentication device may be used as a proxy to sign the authentication message(s) via the communication network **5016**. The authentication device may be used as a proxy to sign the authentication message(s) via the communication network **5016** on behalf of the electronic device **5022**, and/or in situ with one or more substitutes. The authentication device may be given different user roles and permissions by the content host **5002**. The authentication device may be given different user roles and permissions by the communication network **5016** relayed by cross-consensus from the content host in connection with the full node(s), nodes or trusted nodes. The authentication device may be given different user roles and permissions by both the content host **5002** and one or more components of the communication network **5016**. The authentication device may be used to identify a user that is associated with the object data. The authentication device may authorise the movement of one or more encryption keys to issue new seeds, and secret keys both public and private. The authentication device may have or be the same proxy for one or more accounts. The authentication device may be a proxy for one or more accounts. The authentication device may be used to sign messages by the user or on behalf of the aforementioned substitute(s), to associate indicative object data to either the content host **5002**, and/or communication device **5018**. These messages can be signed, or signed blindly.

- 69 -

The communication device **5018** may store one or more encryption keys. The communication device **5018** may store a seed. The communication device **5018** may be used to establish a connection with another computing device via the communication network **5016** (e.g. in the case where the system includes a distributed ledger such as a blockchain, that is accessible via the communication network **5016**) and identify a user that is associated with particular object data. The electronic device **5022** may be used to establish a connection and sign authentication messages for the ring and/or the electronic device **5022**. The communication device **5016** may authorise the movement of one or more encryption keys to issue new seeds, and secret keys both public and private.

The electronic device **5022** and the communication device **5018** may encrypt communications using an asymmetric encryption scheme. In some embodiments, the communication device **5018** and the electronic device **5022** may exchange encryption data. That is, the communication device **5018** may transmit encryption data to be received by the electronic device **5022** and the electronic device **5022** may transmit encryption data to be received by the communication device **5018**. Each of the communication device **5018** and the electronic device **5022** may use the received encryption data to establish an encrypted communication channel with the other of the respective devices. The communication channel may be via the communication network **5016**. That is, the communication network **5016** may facilitate the communication channel. For example, the communication device **5018** and the electronic device **5022** may execute a Diffie-Helman key exchange scheme to establish an encrypted communication channel. The communication device **5018** and the electronic device **5022** may execute a Schnorrkel cryptographic signature scheme to establish an encrypted communication channel. The communication device **5018** and the electronic device **5022** may execute a Ristretto construction in the process of establishing an encrypted communication channel. The communication device **5018** and the electronic device **5022** may execute a x25519 key exchange protocol in the process of establishing an encrypted communication channel.

The electronic device **5022** only releases stored data if the correct encryption data is provided by the communication device **5018**. The electronic device **5022** is capable of registering an unauthorized attempt at access (e.g., incorrect/invalid encryption data) and can perform appropriate countermeasures in response. For example, the electronic device **5022** can render itself locked, temporarily or permanently unreadable and/or notify another electronic device about the attempted breach. The electronic device **5022** may

- 70 -

lock access to the stored object data in the event that the number of failed access attempts exceeds a threshold value.

5 The electronic device **5022** transmits the object data. In particular, the electronic device **5022** transmits the object data in response to being activated by the communication device **5018** and any security or encryption criteria required for transmission being satisfied. The at least one processor **5026** of the electronic device **5022** retrieves the object data from memory **5028**, and wirelessly transmits the object data via the communication system **5030**. The object data may be transmitted in an encrypted state. The object data may be transmitted in an unencrypted state.

At **6004**, the communication device **5018** receives the object data that was transmitted by the electronic device **5022**.

15 The communication device **5018** transmits the object data to the user interface system **5010**. In some embodiments, the communication device **5018** may validate the object data prior to transmitting it to the user interface system **5010**. Validating the object data may comprise comparing one or more parts of the object data to validation data. In some embodiments, the user interface system **5010** validates the object data. Again, validating the object data may comprise comparing at least part of the object data to validation data.

In some embodiments, the communication device **5018** may process at least some of the object data. Similarly, the user interface system **5010** may process at least some of the object data. For example, the communication device **5018** and/or the user interface system **5010** may be configured to determine a shortcode based at least in part on the object data. Alternatively, the shortcode may be provided by the content host **5002**. As described herein, the shortcode may be determined using one or more of the UID, one or more encryption keys (e.g. a private key and/or a public key) or another aspect of the object data. The shortcode may be determined based at least in part on the time at which the communication occurs. For example, a communication occurring at a first time may result in the generation of a different shortcode to a communication occurring at a second time that is different to the first time. The shortcode may be stored in the memory of the communication device **5018**. The shortcode may be stored in the memory of the user interface system **5010**.

- 71 -

The user interface system **55002**. In particular, the user interface system **5010** transmits the object data to the content host **5002** over the communication network **5016**. The content host **5002** may validate the object data. Again, validating the object data may comprise comparing at least part of the object data to validation data. The validation data
5 may be another copy of the object data that is stored in memory **5006**. The validation data may be accessed directly from memory **5006**. In some embodiments, the validation data may be accessed via the communication network **5016**, for example, via one or more communication channels requiring one or more authorisation signatures. The data transmitted from the user interface system **5010** may also comprise data generated by the
10 user interface system **5010** or the communication device **5018** based at least in part on the object data. The user interface system **5010** may therefore be said to transmit data associated with the object data to the content host **5002**.

As described herein, the content host **5002** may comprise one or more nodes of a
15 distributed ledger. In some embodiments, one or more of the communication device **5018**, the user interface system **5010** and the content host **5002** may validate the object data using a light client. One or more of the communication device **5018**, the user interface system **5010** and the content host **5002** may validate the object data using a full node(s) or a trusted node(s). One or more of the communication device **5018**, the user interface
20 system **5010** and the content host **5002** may be configured to execute an extension software module. The extension software module may be integrated with a browser (e.g. a web browser). Validating the object data may comprise executing a smart contract(s), of which may consist of one or more cross-chain connected contracts.

25 One or more of the communication device **5018**, the user interface system **5010** and the content host **5002** may interact with another of these components using a smart contract.

At **6006**, the content host **5002** determines content data that is associated with the object data. In particular, the at least one processor **5004** determines content data that is
30 associated with the object data. The content host **5002** may determine the content data based at least in part on the data transmitted by the user interface system **5010**. In other words, the content host **5002** may determine the content data based at least in part on the object data. The content data is stored in memory **5006**. The content host **5002** may determine a shortcode. The shortcode may be associated with the object **5020**. The
35 content host **5002** may be configured to determine a shortcode based at least in part on the object data or the data transmitted to the content host **5002** from the user interface

- 72 -

system **5010**. As described herein, the shortcode may be determined using one or more of the UID, one or more encryption keys (e.g. a private key and/or a public key) or another aspect of the object data. The shortcode may be determined based at least in part on the time at which the communication occurs. For example, a communication occurring at a first time may result in the generation of a different shortcode to a communication occurring at a second time that is different to the first time. The shortcode may be stored in the memory of the content host **5002**. Other object data may be stored on an external content host. The external content host may be separate to the content host **5002**.

The content data may comprise game data that is associated with a particular storyline of a game. The content data may be associated with a quest of the game. The content data may be associated with a character arc of the game. The content data may be associated with dialogue of the game. The content data may be associated with a sidequest of the game. The content data may comprise user interface data. That is, at least some of the content data may be configured to be rendered for display on a display.

At **6008**, the content host **5002** transmits the content data. The content host **5002** transmits the content data to the user interface system **5010** via the communication network **5016**. The user interface system **5010** receives the content data.

At **6010**, a user interface is rendered. The user interface is rendered based at least in part on the content data. The user interface system **5010** renders a user interface based at least in part on the content data. In particular, the at least one processor of the user interface system **5010** renders the user interface. The at least one processor generates the user interface, based at least in part on the content data. The at least one processor of the user interface system **5010** displays the user interface on the display **5012**.

User Interface

As described herein, user interface system **5010** is configured to display a user interface that is specific to the relevant object **5020**. However, more generally, the user interface system **5010** of the present application is configured to display a user interface associated broadly with the object management system **5000**.

The user interface comprises a dashboard. The dashboard enables the user to interact with one or more components of the object management system **5000** (e.g. one or more objects, one or more storylines etc.). The dashboard enables the user to configure one or

- 73 -

more aspects of the object management system **5000**.

The dashboard displays an overview of a number of registered UID-key pairs. Each UID-key pair is associated with an object, as described herein. The UID-key pairs may be
5 organised into groups to assist with ease of management.

The user interface comprises a "Manage UID and Keys" section. This section allows a user to view, add, remove and/or group UID-key pairs. The user interface comprises a "Dynamic Shortcode Generation" section. This section enables the generation or selection
10 of shortcodes. The user interface provides options to restrict access to one or more aspects of the object management system **5000** and/or content data based on user roles. This ensures that only authorised individuals can modify, view or interact with specific content. The user interface provides a number of backup and restoration options. Users
15 can create backups of current settings and UID-key pairs or restore them from previous backups. Backups may be stored in such a way that historical information is not lost. That is, content host **5002**, for example, may store historical backups of UID-key pairs, other object data and/or other content data.

The user interface supports batch operations. Users can batch import or export UID-key
20 pairs, streamlining the setup process for expansive campaigns or game scenarios. The user interface supports the creation and management of groups. These groups can then be associated with specific content, character(s) or gameplay mechanics, allowing for diverse gameplay experiences.

25 As gameplay evolves and content needs to be updated, the user interface enables versioning. The user interface comprises a versioning section that allows users to track content changes associated with specific tags. This ensures that payers are always interacting with the most recent and relevant content.

30 Content, whether it's articles, videos, game levels, or any other digital asset, may be tagged with specific UID criteria. Only users with UIDs (i.e., people with objects where the UID stored on the electronic device **5022** matching these criteria) can access or view this content. For example, a premium article on a news website might be accessible only to UIDs linked with 'premium' user accounts. In a community forum, UIDs linked to
35 'moderator' profiles grant users the ability to edit or delete other users' posts. In an educational platform, completing a course might add a 'course-completed' attribute to the

- 74 -

UID, unlocking advanced materials or forums. By relying on UID-based authentication, the object management system **5000** can enhance security. Unauthorized access attempts can be thwarted as they wouldn't have the associated UID. Additionally, suspicious or anomalous UID interactions can trigger alerts or temporary suspensions. UIDs can also

5 facilitate community interactions. Users can potentially 'share' aspects of their UID achievements or content access with friends or colleagues, fostering a sense of community and shared progress. For example, in a gaming platform, players might share access to a co-op game level they've unlocked with their friends for a limited time.

10 **Figure 48** shows an example graphical user interface **7000**, according to some embodiments of the present disclosure. The graphical user interface **7000** shows a character identity, "Capt of the Odyssey" that is associated with the UID of an object. The graphical user interface **7000** enables a user to play audio associated with a game. The user of the graphical user interface **7000** may be a player of a game.

15

Alternative Implementations of the Object Management System **5000**

In some embodiments, the object management system **5000** may be implemented using a distributed ledger. The distributed ledger may be in the form of a blockchain. The data described herein as being stored in the memory **5006** of the content host **5002** may be

20 stored on the distributed ledger. It will be understood that one or more independent computing devices may therefore store the data described herein as being stored in memory **5006**. Such a configuration advantageously reduces or eliminates the need for a centralised organisation to host the described services.

25 In some embodiments, the object management system **5000** may be implemented using one distributed ledger. In some embodiments, the object management system **5000** may be implemented using a plurality of distributed ledgers. One or more hybrid or cross-chain consensus or interoperability methods may be used. For example, a Blind Assignment for Blockchain Extension (BABE) and/or GRANDPA consensus mechanism may be used. At

30 least part of the object data, or a reference to the object data, may be transferred from one distributed ledger to another. This may be done using a method involving a message that is signed using a common security standard (e.g. an XCM security standard).

The communication device **5018** is described herein as being in communication with the

35 user interface system **5010** and providing the object data received from the electronic device **5022** to the user interface system **5010** for onward transmission to the content host

- 75 -

5002. It will be appreciated that in some embodiments, the communication device **5018** may be in communication with the content host **5002**. For example, the communication device **5018** may be in communication with the content host **5002** via the communication network **5016**. In such an embodiment, the communication device **5018** may provide the object data to the content host **5002**. That is, the communication device **5018** may bypass providing the object data to the user interface system **5010** for forwarding to the content host **5002** and may instead directly provide the object data to the content host **5002**.

Advantages

As described herein, the user interface of the object management system **5000** enables significantly improved functionality compared to previous systems. The various sections of the user interface reduce the complexity of use, which significantly decreases the barrier to entry of playing a tabletop game using the system **5000**. The object management system **5000** and the user interfaces described herein enable real-time monitoring of objects during events such as tabletop games, the dynamic configuration of events and secure content protection.

The incorporation of the electronic device **4900, 5022** into the objects described herein enables the use of unique cryptographic techniques to ensure the ongoing integrity of the object data stored at the content host **5002**. The electronic devices **4900, 5022** are tamper-resistant, and with the state of each object being stored in a location that is accessible to users of the object management system **5000**, the accuracy and continuity of the object data is maintained over time and over play. This creates the ability for users to interact in the real world with their objects, with the real-world changes being reflected within the object management system **5000**. Specifically, users may trade their objects **5020** in the real world, with the transfer of ownership being recorded at the content host **5002** and/or the object **5020** itself. The increased storage of the electronic devices **4900, 5022** can be pivotal when considering storing game-related data directly on the electronic devices **4900, 5022**. Further, the enhanced security features of the electronic devices **4900, 5022** ensure that they are more versatile in their applications, and are suitable for applications requiring a higher level of data protection, data storage and/or authentic user interaction.

The user interface described herein is tailored for the capabilities of the electronic devices **4900, 5022**, leveraging the security and unique authentication capabilities. For a tabletop game such as a Dungeons and Dragons campaign or a similarly layered application, the

- 76 -

electronic devices **4900, 5022** offer significant advantages in terms of content protection, dynamic interactions and immersive experiences.

5 As players navigate through an adventure, certain miniature interactions can lead to divergent story paths. For instance, accessing a specific miniature within the system **5000** might unveil a previously hidden subplot or offer choices that determine the story's outcome. This means each game session could have varying narratives, making replays fresh and engaging.

10 Further, characters are not static. As miniatures with the electronic devices **4900, 5022** are interacted with, they might gain new abilities, level up, or even undergo transformations. This dynamic progression can be based on in-game achievements, decisions, or interactions, ensuring that characters evolve organically based on gameplay.

15 The backstories of characters, worlds, and artifacts often remain unexplored in traditional tabletop games. However, with the electronic devices **4900, 5022** and the system **5000**, players can dive deep into detailed lore snippets by accessing specific miniatures. This adds depth to the gaming universe and provides enthusiasts with a wealth of knowledge to explore.

20 As players progress, the challenges they face can adapt in real-time. Depending on player choices or achievements, adversaries can become more formidable, or puzzles can change, ensuring that players are constantly challenged and engaged.

25 By intertwining the physical act of tabletop gaming with dynamic digital content delivery, the electronic devices **4900, 5022** and the system **5000** transforms the gaming experience. It offers an unparalleled level of depth, customization, and player agency, ensuring that each game session remains memorable and distinct.

30 For example, a player might have miniatures A and B. While each individually reveals certain story arcs, using them together in a specific scenario, thanks to their combined UID & key interactions, could unveil a secret chapter or side quest that can be displayed and interacted with using the user interface system **5010**. Certain miniatures could be introduced as limited-edition items with unique electronic devices **4900, 5022**. Owning and
35 registering such a miniature may provide players access to exclusive events, character abilities, or secret realms within the game. This exclusivity can enhance the miniature's

- 77 -

value, both in-game and potentially in real-world markets. As players register more UIDs and keys, they might reach predefined milestones. Registering 10 unique miniatures might grant access to a special narrative arc, while registering 50 could unlock a rare character class or ability.

5

Miniatures with rarer electronic devices **4900**, **5022** or rarer object data could carry special in-game advantages. Rare object data (such as a character type) might allow a player to earn in-game currency at a faster rate, have increased trading leverage, or even influence game world politics or economies. This injects an element of strategy in collecting and trading miniatures. Based on the rarity of the object data registered, the game can adjust its difficulty or present challenges tailored to the player's collection. A player with electronic devices with rare object data might face formidable adversaries or intricate puzzles, ensuring they remain engaged.

10

15 A character's backstory or motivations might be fragmented across multiple electronic devices. By collecting and registering specific sets of miniatures, players can piece together these narratives, offering a richer understanding of the game's lore.

Given the inherent value associated with rare object data, players might engage in trading or exchanging miniatures, fostering community interaction. A player might trade a miniature with rare object data that unlocks a mage's ability for one that unveils a hidden assassin's guild storyline.

20

By monitoring UID interactions and accesses, platforms can glean insights into user behaviour, preferences, and engagement patterns. This data can drive further content personalization, ensuring that users are presented with material most relevant to them. In essence, the UID-based user database system offers a multi-faceted approach to digital platform management. It merges content delivery, privilege management, and user progression into a seamless, dynamic experience, ensuring that users remain engaged, rewarded, and secure.

25

30

The system **5000** thus transcends traditional gaming mechanisms by weaving in elements of collectability, rarity, and tangible value. The multi-dimensional approach not only enhances gameplay depth but also fosters community building, strategic thinking, and a genuine sense of achievement. Such advantages are not enabled by existing systems.

35

- 78 -

In the claims that follow and in the preceding description of the invention, except where the context requires otherwise due to express language or necessary implication, the word "comprise" or variations such as "comprises" or "comprising" is used in an inclusive sense, i.e. to specify the presence of the stated features but not to preclude the presence
5 or addition of further features in various embodiments of the invention.

It is to be understood that, if any prior art publication is referred to herein, such reference does not constitute an admission that the publication forms a part of the common general
10 knowledge in the art, in Australia or any other country.

Modifications and variations as would be apparent to a skilled addressee are deemed to be within the scope of the present disclosure.

- 79 -

Claims

1. A base for supporting a miniature figurine, the base comprising a body having:
an upper surface on which the miniature figurine can be placed;
5 a first magnet positioned within a first recess in the body and that is aligned with an axis of the body;
a set of second magnets that are radially offset relative the first magnet.
2. A base as claimed in claim 1, wherein the set of second magnets are coaxially
10 arranged with the first magnet.
3. A base as claimed in claim 1, further comprising a third magnet axially aligned with
the first magnet and associated with a third recess such that the third magnet is
inset from a bottom surface of the body, the second set of magnets being coaxially
15 aligned with the third magnet.
4. A base as claimed in any one of claims 1 to 3, wherein one or more magnets of the
second set of magnets are associated with a respective receptacle in which an
auxiliary magnet or ferromagnetic material can be received and magnetically
20 retained therein.
5. A base as claimed in any one of claims 1 to 4, wherein each magnet of the set of
second magnets are equidistantly spaced from one another.
- 25 6. A base as claimed in any one of claims 1 to 5, wherein the body has:
an upper portion that includes upper surface; and
a lower portion that includes a frustum having 2^n number of sides, wherein
each magnet of the second set of magnets is associated with a separate side of
the frustum.
30
7. A base as claimed in claim 6, wherein the sides of the frustum are angled between
35° and 65° relative the axis of the body.
8. A base as claimed in any one of claims 1 to 7, wherein a pole face of each magnet
35 of the second set of magnets is orientated transversely relative the axis of the
body.

- 80 -

9. A base as claimed in any one of claims 1 to 7, wherein a pole face of each magnet of the second set of magnets is perpendicular to the axis of the body.
10. A base as claimed in any one of claims 1 to 9, wherein a portion of the first magnet protrudes from the upper surface.
11. A base as claimed in any one of claims 1 to 10, wherein the upper surface has a perimeter defined by an upwardly extending lip.
12. A base as claimed in any one of claims 1 to 11, wherein an outer edge of the upper surface is in the form of a circle or polygon.
13. A base as claimed in any one of claims 1 to 12, wherein the set of second magnets includes four magnets.
14. A base for supporting a miniature figurine, the base comprising a planar body having:
a first magnet having a portion protruding from a first side of the body;
a cavity that opens out at a second side of the body;
a disc having a set of second magnets, the disc being receivable in the cavity and retainable therein by magnetic interaction of the set of second magnets and the first magnet; and
a dial having a third magnet protruding therefrom, the third magnet being receivable in the cavity and retainable therein by magnetic interaction of the third magnet and the first magnet,
wherein the disc and dial are independently rotatable about an axial direction of the first magnet.
15. A base as claimed in claim 14, further comprising a recess located in the cavity and that is axially aligned with the first magnet, wherein a distal end of the third magnet is receivable in the recess when the dial is located in the cavity.
16. A base as claimed in claim 14 or 15, wherein the disc is annular such that the third magnet can pass through a central opening of the disc.
17. A base as claimed in any one of claims 14 to 16, wherein the dial has a radially

- 81 -

extending arm that can overhang the disc.

18. A base as claimed in claim 17, wherein the dial has one or more radially extending protrusions at an opposite end to the arm that overhang the disc
- 5 19. A base as claimed in any one of claims 14 to 18, wherein the disc is provided with a first set of indicia.
20. A base as claimed in any one of claims 14 to 19, wherein the second side of the planar body is provided with a second set of indicia.
- 10 21. A base as claimed in any one of claims 14 to 20, wherein the dial is provided with an indicium.
- 15 22. A base as claimed in any one of claims 14 to 21, wherein the set of second magnets includes four magnets equidistantly spaced around the disc.
23. A base as claimed in any one of claims 14 to 22, wherein a portion of the first magnet protrudes from the first side by up to 50% of a height of the first magnet.
- 20 24. A base as claimed in any one of claims 14 to 23, wherein the cavity is circular.
25. A base for supporting a miniature figurine, comprising:
an upper component comprising a body having:
25 an upper surface on which the miniature figurine can be placed;
a first magnet that is aligned with an axis of the body;
an open recess positioned on the axis of the body; and
a set of second magnets that are radially offset relative the first magnet;
30 a lower component comprising:
a first magnet protruding from a first side of the planar body and that is receivable in the recess of the upper component and magnetically engageable with the upper component;
a cavity that opens out at a second side of the planar body; and
35 a disc having a set of second magnets, the disc being receivable in the cavity and retainable therein by magnetic interaction of the set of

- 82 -

- second magnets and the first magnet of the lower component;
wherein the upper component and lower component can be magnetically coupled to one another to form an assembly where the second set of magnets of the upper component and the second set of magnets from the disc of the lower component magnetically interact with one another such that rotation of the upper component relative the lower component causes the disc to rotate relative the lower component.
- 5
26. A base as claimed in claim 25, wherein the upper component is the base of any one of claims 1 to 13.
- 10
27. A base as claimed in claim 25 or 26, wherein the lower component is the base of any one of claims 14 to 24.
- 15
28. An adaptor that in use is secured to an underside of a miniature figurine, the adaptor comprising:
a plate having a central recess for receiving a first magnet such that the first magnet can be inset relative a face of the plate;
several recesses located in the plate for receiving a set of second magnets that are coaxially arranged with the first magnet.
- 20
29. An adaptor as claimed in claim 28, wherein the central recess is a through hole.
30. An adaptor as claimed in claim 28 or 29, wherein the several recesses are equidistantly arranged around a boundary of the plate.
- 25
31. An adaptor as claimed in any one of claims 28 to 30, wherein the several recesses each have an open side.
- 30
32. An adaptor as claimed in any one of claims 28 to 31, further comprising reinforcing members that extend radially from the central recess to the several recesses.
33. A spinner assembly for use in a role-playing game, the spinner assembly comprising:
a lower component comprising:
a planar body having an upper side,
- 35

- 83 -

a projection of or attached with the planar body extending from the upper side aligned axially with an axis of the planar body,

a set of one or more first magnets that are radially offset relative the axis, a rotatable component comprising:

5 a generally disc or circular shaped body having a recess aligned coaxially with the axis, the recess configured for receiving the projection so as to allow the rotatable component to be rotatably supported so as to be rotatable about the axis, and

10 a set of one or more second magnets that are radially offset relative the axis.

34. A spinner assembly according to claim 33, wherein the axis is aligned with the vertical axis, the set of first magnets comprises a plurality of magnets, and the set of second magnets comprises a plurality of magnets.
- 15 35. A spinner assembly according to claim 33 or claim 34, wherein the axis is aligned with the vertical axis, the set of first magnets comprises a plurality of magnets, and the set of second magnets comprises a plurality of magnets.
- 20 36. A spinner assembly according to claim 34 or claim 35, wherein, the sets of first and second magnets are positioned relative each other so as to be magnetically interactable for biasing the rotatable component in an orientation that is generally parallel with the planar form of the lower component.
- 25 37. A spinner assembly according to any one of claims 33 to 36, wherein the set of first and second magnets are positioned with the respective lower and rotatable components so as to be coaxial one another.
- 30 38. A spinner assembly according to any one of claims 33 or claim 37, wherein the sets of first and second magnets align radially relative the axis, optionally, the sets of first and second magnets have the same number of magnets, optionally, the sets of first and second magnets are spaced equidistant about their respective host bodies, optionally, each magnet of the sets of first and second magnets lie on about the same radial line emanating from the axis.
- 35 39. A spinner base assembly according to any one of claims 33 to 38, wherein the first and second magnets are radially offset from each other relative the axis.

- 84 -

40. A spinner assembly according to any one of claims 33 to 39, wherein the sets of first and second magnets are orientated substantially the same so that their respective poles are orientated in the same manner, the set of first and second magnets positioned relative each other so as to magnetically interact so as to generate a repulsive effect therebetween having components in the vertical plane and the horizontal plane.
41. A spinner assembly according to any one of claims 33 to 40, wherein the set of first and second magnets are positioned relative each other so as to magnetically interact so as to stabilise the rotatable component at or about a desired position of alignment relative the lower component following cessation of rotation of the rotatable component.
42. A spinner assembly according to any one of claims 33 to 41, wherein the first and second sets of magnets are spaced or offset from one another in the vertical plane.
43. A spinner assembly according to any one of claims 33 to 42, wherein the set of first magnets are radially offset from the set of second magnets so as to be inward most relative to the axis, or radially offset so as to be outermost from the set of second magnets relative to the axis.
44. A spinner assembly according to any one of claims 33 to 43, wherein the rotatable component is a single piece body, or an assembly of more than one component parts.
45. A spinner assembly according to any one of claims 33 to 44, wherein a distal portion of the projection is substantially flat, pointed, domed, circular, oval, or hemispherical.
46. A spinner assembly according to any one of claims 33 to 45, further comprising a cover component configured so as to cover a portion of the lower and rotatable components when the cover is assembled with the lower component.
47. A spinner assembly according to claim 46, wherein the cover component comprises a planar support surface on which a miniature figurine or an embodiment of, or a

- 85 -

component of, a base according to any one of claims 1 to 27, or an adapter according to any one of claims 28 to 32.

- 5 48. A spinner assembly according to claim 46 or claim 47, wherein the cover component comprises a side wall extending from a portion of the periphery of the support surface so as to define a lower rim spaced from the planar support surface.
- 10 49. A spinner assembly according to claim 48, wherein the lower component comprises or carries a side wall extending therefrom.
50. A spinner assembly according to claim 48 or claim 49, wherein the side wall of the cover component or the lower component comprises one or more apertures, slots or cut-out portions.
- 15 51. A spinner assembly according to any one of claims 46 to 50, wherein the side wall is configured having an open region which exposes a portion of the rotatable component when the cover component is assembled thereabout, the exposed portion of the rotatable thereby being accessible to a user so as to rotate the rotatable component.
- 20 52. A spinner assembly according to any one of claims 48 to claim 51, wherein the rotatable component comprises a set of one or more third magnets and the cover component comprises a set of one or more fourth magnets, optionally, the set of third magnets comprises a plurality of magnets spaced about the rotatable component, and the set of fourth magnets comprises a plurality of magnets spaced
25 about an interior wall of the side wall of the cover component, wherein, in use, the set of third and fourth magnets magnetically interact so as to positionally stabilise or register the rotatable component at a desired position relative the lower component following cessation of rotation of the rotatable component.
- 30 53. A spinner assembly according to any one of claims 33 to claim 52, wherein the rotatable component carries one or more electrical devices.
- 35 54. A spinner assembly according to claim 53, wherein the or each electrical device is any of: a plurality of light emitting diode (LED) modules, an RFID tag, a NTAG® 424 DNA tag.

- 86 -

55. A spinner assembly according to claim 53 or claim 54, wherein the or each electrical device comprises a plurality of LED modules, and the rotatable component is configured with a plurality of recesses for receiving a respective LED module, the plurality of recesses being coaxial with the axis and provided at or near a periphery of the rotatable component.
56. A spinner assembly according to any one of claims 33 to claim 55, further comprising or configured operable with an inductive power transfer arrangement for providing power to one or more electrical device/components carried by the rotatable component, the lower component configured so as to carry an inductive coil operable by way of a power source for establishing an electromagnetic field of sufficient strength to encompass a portion of the rotatable component during use for powering one or more electrical components carried by the rotatable component.
57. A spinner assembly according to claim 55 or claim 56, wherein the plurality of LEDs each comprise magnetic elements which provide or operate as the set of third magnets in interacting with the set of fourth magnets in magnetically interacting so as to positionally stabilise or register the rotatable component at a desired position relative the lower component following cessation of rotation of the rotatable component.
58. A spinner assembly according to any one of claims 33 to 57, wherein the rotatable component comprises one or more sets of indicia provided on its body.
59. A base for supporting a miniature figurine, the base comprising an electronic device, the electronic device comprising:
a wireless communication system; and
a controller comprising:
at least one processor; and
memory storing data associated with the base and program instructions accessible by the at least one processor.
60. A base as claimed in claim 59, wherein:
the base comprises a recess; and
the electronic device is secured within the recess.

- 87 -

61. A base as claimed in claim 59 or claim 60, wherein the electronic device comprises a NTAG® 424 DNA tag.
- 5 62. An adaptor that in use is secured to an underside of a miniature figurine, the adaptor comprising an electronic device, the electronic device comprising:
a wireless communication system; and
a controller comprising:
at least one processor; and
10 memory storing data associated with the adaptor and program instructions accessible by the at least one processor.
63. An adaptor as claimed in claim 62, wherein:
the adaptor comprises a recess; and
15 the electronic device is secured within the recess.
64. An adaptor as claimed in claim 62 or claim 63, wherein the electronic device comprises a NTAG® 424 DNA tag.
- 20 65. A method comprising:
receiving object data from an electronic device, the object data being associated with an object;
determining content data that is associated with the object data; and
transmitting the content data.
- 25 66. The method of claim 65, wherein the content data comprises user interface data that is configured to be rendered for display.
67. The method of claim 65 or claim 66, further comprising rendering a user interface
30 based at least in part on the content data.
68. The method of claim 67, wherein the user interface comprises one or more of:
a first section that is configured to enable a user to view, add, remove
and/or group UID-key pairs;
35 a second section that is configured to enable generation or selection of shortcodes;

- 88 -

a third section that is configured to enable restriction of access to one or more aspects of the user interface; and
a fourth section that is configured to enable backing up and restoration.

- 5 69. The method of any one of claims 65 to 68, further comprising:
 transmitting encryption data to the electronic device;
 validating, by the electronic device, the encryption data; and
 transmitting, by the electronic device, the object data, in response to the
 validation.
- 10 70. The method of claim 69, wherein the encryption data comprises a decryption key.
71. The method of claim 69 or claim 70, further comprising:
 exchanging encryption data with the electronic device; and
15 transmitting, by the electronic device, the object data, subsequent to the
 exchanging of the encryption data.
72. The method of any one of claims 65 to 71, further comprising:
 validating the object data, wherein validating the object data comprises
20 comparing the object data to validation data.
73. The method of any one of claims 65 to 72, wherein the object data comprises a
 shortcode.
- 25 74. The method of any one of claims 65 to 73, wherein the content data comprises
 game data that is associated with a particular storyline of a game.
75. The method of any one of claims 65 to 74, wherein the object is at least part of a
 miniature figurine.
- 30 76. The method of any one of claims 65 to 75, wherein the object data comprises one
 or more of:
 a unique identifier;
 one or more encryption keys;
35 data indicative of a character identity that is associated with the object;
 data indicative of a character type that is associated with the object;

- 89 -

data indicative of a character status that is associated with the object;
equipment data that is associated with the object; and
data indicative of a skill that is associated with the object.

- 5 77. The method of any one of claims 65 to 76, wherein the content data is associated
with one or more of:
 a quest of a game;
 a character arc of the game;
 dialogue of the game; and
10 a sidequest of the game.
78. A content host comprising:
 at least one processor; and
 memory storing program instructions accessible by the at least one
15 processor and configured to cause the at least one processor to:
 receive object data that is associated with an object;
 determine content data that is associated with the object data; and
 transmit the content data to a user interface system.
- 20 79. The content host of claim 78, wherein the content data comprises user interface
data that is configured to be rendered for display.
80. The content host of claim 78 or claim 79, wherein the program instructions are
further configured to cause the at least one processor to validate the object data,
25 wherein validating the object data comprises comparing the object data to
validation data.
81. The content host of any one of claims 78 to 80, wherein the object data comprises
one or more of:
30 a shortcode;
 a character type that is associated with the object;
 a character identity that is associated with the object;
 a character status that is associated with the object;
 equipment data that is associated with the object; and
35 a skill that is associated with the object.

- 90 -

82. A system comprising:
the content host of any one of claims 78 to 81; and
an electronic device comprising:
a wireless communication system; and
5 controller comprising:
at least one controller processor; and
controller memory storing:
the object data; and
controller program instructions accessible by the at least one
10 controller processor.
83. The system of claim 82, wherein the controller program instructions are configured to cause the at least one controller processor to wirelessly transmit the object data using the wireless communication system.
- 15 84. The system of claim 82 or claim 83, further comprising the object, the object comprising the electronic device.
85. The system of claim 84, wherein the object comprises:
20 the base of any one of claims 1 to 27 or claims 59 to 61;
the adaptor of any one of claims 28 to 32 or claims 62 to 64; and/or
the spinner assembly of any one of claims 33 to 58 or claims 101 to 103.
86. The system of claim 84 or claim 85, wherein:
25 the object comprises a recess; and
the electronic device is secured within the recess.
87. The system of claim 84 or claim 85, wherein the object is at least part of a
miniature figurine.
- 30 88. The system of any one of claims 82 to 87, wherein the controller program instructions are configured to cause the at least one controller processor to receive encryption data, via the wireless communication system.
- 35 89. The system of claim 88, wherein the controller program instructions are configured to cause the at least one controller processor to validate the encryption data.

- 91 -

- 5 90. The system of claim 89, wherein the controller program instructions are configured to cause the at least one controller processor to transmit the object data, via the wireless communication system, in response to the validation.
91. The system of any one of claims 88 to 90, wherein the encryption data comprises a decryption key.
- 10 92. The system of any one of claims 82 to 91, wherein the controller program instructions are configured to cause the at least one controller processor to:
 exchange encryption data with another electronic device; and
 transmit the object data subsequent to the exchanging of the encryption data.
- 15 93. The system of any one of claims 82 to 92, further comprising a user interface system, wherein the user interface system is configured to receive the content data and to render a user interface based at least in part on the content data.
- 20 94. The system of claim 93, wherein the user interface comprises one or more of:
 a first section that is configured to enable a user to view, add, remove and/or group UID-key pairs;
 a second section that is configured to enable generation or selection of shortcodes;
 a third section that is configured to enable restriction of access to one or
25 more aspects of the user interface; and
 a fourth section that is configured to enable backing up and restoration.
- 30 95. The system of claim 93 or claim 94, wherein:
 the user interface system comprises a network interface that is configured to enable the user interface system to communicate with the content host using a communications network; and
 the user interface system is configured to provide the object data to the content host using the communications network.
- 35 96. The system of any one of claims 93 to 95, wherein the user interface system is configured to display the user interface on a display.

- 92 -

97. The system of any one of claims 82 to 96, wherein the content data comprises game data that is associated with a particular storyline of a game.
- 5 98. The system of any one of claims 82 to 97, further comprising a communication device.
99. The system of claim 98, when dependent on any one of claims 89 to 93, wherein:
the communication device is in communication with the user interface
10 system; and
the communication device is configured to:
receive the object data transmitted by the electronic device; and
provide the object data to the user interface system.
- 15 100. The system of claim 97 or claim 99, wherein the communication device is configured to energise the electronic device.
101. A spinner assembly of any one of claims 33 to 58, further comprising an electronic device arranged in the lower component or the rotatable component, the electronic
20 device comprising:
a wireless communication system; and
a controller comprising:
at least one processor; and
memory storing data associated with the base and program
25 instructions accessible by the at least one processor.
102. A spinner assembly of claim 101, further comprising a recess; and the electronic device is secured within the recess.
- 30 103. A spinner assembly of claim 101 or claim 102, wherein the electronic device comprises a NTAG® 424 DNA tag.