

CLAIMS:

1. An entertainment system comprising:
 - a camera configured to capture an image of a handheld object including an angle-identifying element of the handheld object; and
 - a controller having a processor and a memory, the memory storing machine-readable instructions configured to cause the processor to:
 - identify the angle-identifying element of the handheld object in the image;
 - and
 - determine an orientation of the handheld object based on a detected characteristic of the angle-identifying element in the image.
2. The entertainment system of claim 1, wherein the processor is configured to determine a position of the handheld object in the image, and determine a pointing target of the handheld object based on the position and orientation of the handheld object.
3. The entertainment system of claim 1, comprising the handheld object, wherein the angle-identifying element comprises a refractive lens positioned over a plurality of viewable sections, and wherein light emitted through or reflected from each viewable section of the plurality of viewable sections is distinguishable in relation to light emitted through or reflected from other viewable sections of the plurality of viewable sections.
4. The entertainment system of claim 3, wherein the handheld object comprises a light source, wherein each viewable section of the plurality of viewable sections comprises a pass-through filter.
5. The entertainment system of claim 1, comprising the handheld object, wherein the handheld object comprises a device identifier positioned adjacent a lens configured to enable the camera to capture an image of at least a portion of the device identifier.

6. The entertainment system of claim 5, wherein the memory stores machine-readable instructions configured to cause the processor to combine the image of at least the portion of the device identifier with previously stored images of portions of the device identifier to form a combined image.
7. The entertainment system of claim 6, comprising an output device configured to output a user interactive experience, wherein the memory stores machine-readable instructions configured to cause the processor to read the combined image and instruct the output device to output the user interactive experience based on the combined image.
8. The entertainment system of claim 5, wherein the memory stores a correlation of the device identifier with identification data for the handheld object, a user, a user profile, or any combination thereof.
9. The entertainment system of claim 5, wherein the device identifier comprises a barcode, a Quick Response (QR) code, a Universal Product Code (UPC), a serial number, a product number, or any combination thereof.
10. The entertainment system of claim 1, comprising an output device configured to output a user interactive experience, wherein the memory stores machine-readable instructions configured to cause the processor to instruct the output device to output the user interactive experience based on the orientation of the handheld object.
11. A handheld object configured to facilitate detection of an orientation of the handheld object by a monitoring system, the handheld object comprising:
 - a body configured to be handheld;
 - an angle-identifying element comprising a plurality of sections, wherein each section of the plurality of sections is visually distinguishable in relation to other sections of the plurality of sections; and

a lens positioned adjacent the angle-identifying element such that one or more sections of the plurality of sections are visible, via the lens, to a camera at a particular position relative to the angle-identifying element.

12. The handheld object of claim 11, comprising a light source, wherein the light source is configured to emit light through each of the plurality of sections and through the lens.

13. The handheld object of claim 12, wherein the light source comprises a liquid crystal display, a light-emitting diode, or an organic light-emitting diode.

14. The handheld object of claim 11, wherein the plurality of sections combine to provide a device identifier.

15. The handheld object of claim 14, wherein the device identifier comprises a barcode, a Quick Response (QR) code, a Universal Product Code (UPC), a serial number, a product number, or any combination thereof.

16. The handheld object of claim 11, comprising a holding feature configured to guide a user to hold the handheld object in a particular manner.

17. The handheld object of claim 11, wherein the plurality of sections are made of reflective material.

18. The handheld object of claim 11, wherein the lens is configured to expand light emitted through or reflected by the plurality of sections.

19. One or more non-transitory, computer-readable media storing instructions which, when executed by at least one processor, cause the at least one processor to perform operations comprising:

receiving an image of a handheld object;

identifying a reference element of the handheld object in the image;
determining a position of the handheld object based on the image;
detecting an angle-identifying feature of the reference element in the image;
determining an orientation of the handheld object based on a characteristic of the angle-identifying feature; and
determining a pointing target of the handheld object based on the position and orientation of the handheld object.

20. The one or more non-transitory, computer-readable media of claim 19, wherein the instructions cause the at least one processor to perform operations comprising performing a calibration process to determine an initial orientation of the handheld object based on the characteristic of the angle-identifying feature of the reference element in the image.