

CLAIMS

What is claimed is:

1. A system to transport a payload platform along a predefined path in an amusement facility, comprising:
 - a system controller configured to generate and transmit a timing signal;
 - a propulsion platform, coupled to and supporting the payload platform, configured to traverse the predefined path in synchronism with the timing signal received from the system controller.
2. The system of claim 1, further comprising:
 - a plurality of entertainment devices positioned along the predefined path in an amusement facility, that operate in synchronism with the timing signal received from the system controller.
3. The system of claim 1, wherein the propulsion platform changes the payload's orientation in any one of or in any combination of yaw, sway, and surge.
4. The system of claim 3, further comprising:
 - a motion base disposed between the propulsion platform and the payload platform.
5. The system of claim 4, wherein the motion base changes the payload's orientation relative to the orientation of the propulsion platform in any one of or in any combination of yaw, roll, pitch, and heave.
6. The system of claim 1, wherein the propulsion platform is a trackless vehicle.
7. The system of claim 1, wherein the propulsion platform further comprises:
 - an object detection device configured to detect an object in the propulsion platform's path, and
 - a communication device configured to transmit an alert to the system controller.

8. The system of claim 7, wherein the system controller is further configured to initiate a protocol to reduce the speed of the propulsion platform by reducing, according to a predetermined rate of change, the frequency of the timing signal to which the propulsion platform moves in synchronism.
9. The system of claim 1, wherein the propulsion platform includes an attachment point to which one payload platform of a plurality of payloads is removably attach, the one payload platform configured to:
- include a plurality of seats;
 - support at least one live action performer;
 - support at least one animated three-dimensional figure;
 - support at least one three-dimensional representation of scenery; or
 - support a three-dimensional representation of mechanical equipment.
10. The system of claim 1, wherein the timing signal is associated with a mode of operation.
11. The system of claim 1, wherein the timing signal is a variable frequency clock.
12. The system of claim 1, wherein the timing signal is an asynchronous collection of data including a master clock time.
13. The system of claim 1, wherein the propulsion platform is further controlled by event triggers.
14. A system, comprising:
- a system controller configured to generate and wirelessly broadcast a plurality of individually addressed timing signals;
 - a plurality of propulsion platforms, each propulsion platform having an address corresponding to at least one of the individually addressed timing signals;
 - each propulsion platform configured to move in synchronism with its corresponding one of the plurality of individually addressed timing signals.

15. The system of claim 14, further comprising:
a plurality of entertainment devices positioned along the predefined path in an amusement facility, that operate in synchronism with the timing signal received from the system controller.
16. The system of claim 14, wherein the propulsion platform changes the payload's orientation in any one of or in any combination of yaw, sway, and surge.
17. The system of claim 16, further comprising:
a motion base disposed between one or more the plurality of propulsion platforms and its associated payload.
18. The system of claim 17, wherein the motion base changes the payload's orientation relative to the orientation of the platform in any one of or in any combination of yaw, roll, pitch, and heave.
19. The system of claim 14, wherein at least one of the plurality of propulsion platforms is a trackless vehicle.
20. The system of claim 14, wherein at least one of the plurality of propulsion platforms further comprises:
an object detection device configured to detect an object in the at least one of the plurality of propulsion platform's path, and
a communication device configured to transmit an alert to the system controller.
21. The system of claim 20, wherein the system controller is further configured to initiate a protocol to reduce the speed of the plurality of propulsion platforms by reducing, according to a predetermined rate of change, the frequency of the timing signals associated with each individually addressed frequency timing signal, wherein a synchronized reduction of the frequency causes the plurality of propulsions platforms to slow in synchronism with each other.

22. The system of claim 14, wherein each of the plurality of propulsion platforms includes with an attachment point to which one payload platform of the plurality of payloads will removably attach,

the one payload platform configured to:

include a plurality of seats;

support at least one live action performer;

support at least one animated three-dimensional figure;

support at least one three-dimensional representation of scenery; or

support a three-dimensional representation of mechanical equipment.

23. The system of claim 14, wherein the timing signal is a variable frequency clock.

24. The system of claim 14, wherein the timing signal is an asynchronous collection of data including a master clock time.

25. The system of claim 14, wherein the propulsion platform is further controlled by event triggers.

26. A system for use in an amusement facility, comprising:

a ride control system, comprising:

a transmitter;

a first processor operationally coupled to the transmitter;

a first memory operationally coupled to the first processor, the first memory storing instructions that when executed by the processor cause the ride control system to transmit individually addressed timing signals;

a plurality of propulsion platforms, each platform comprising:

at least three wheels, at least a first of the three wheels supporting the platform and propelling the platform across a surface;

a motor coupled the first of the three wheels;

a communications receiver;

a second processor operationally coupled to the receiver and motor;

a second memory operationally coupled to the second processor, the second memory storing instructions that when sequentially executed by the second processor cause

the motor to sequentially step the wheel by a predefined rotational increment in synchronism with a timing signal received from the ride control system.

27. The system of claim 26, wherein at least one of the plurality of propulsion platforms is a trackless vehicle.

CLAIMS

1. A system to transport a payload platform along a predefined path, comprising:
 - a system controller configured to generate and transmit a variable frequency clock;
 - a propulsion platform, supporting the payload platform, configured to traverse the predefined path in synchronism with the variable frequency clock received from the system controller.
2. The system of claim 1, further comprising:
 - a plurality of entertainment devices positioned along the predefined path, that operate in synchronism with the variable frequency clock received from the system controller.
3. The system of claim 1, wherein the propulsion platform changes the payload platform's orientation in any one of or in any combination of yaw, sway, and surge.
4. The system of claim 3, further comprising:
 - a motion base disposed between the propulsion platform and the payload platform.
5. The system of claim 4, wherein the motion base changes the payload platform's orientation relative to the orientation of the propulsion platform in any one of or in any combination of yaw, roll, pitch, and heave.
6. The system of claim 4, wherein the motion base includes an attachment point to which one of a plurality of payload platforms is removably attached, the one payload platform configured to:
 - include a plurality of seats;
 - support at least one live action performer;
 - support at least one animated three-dimensional figure;
 - support at least one three-dimensional representation of scenery; or
 - support a three-dimensional representation of mechanical equipment.

7. The system of claim 1, wherein the propulsion platform is a trackless vehicle.
8. The system of claim 1, wherein the propulsion platform further comprises:
 - an object detection device configured to detect an object in the propulsion platform's path, and
 - a communication device configured to transmit an alert to the system controller.
9. The system of claim 8, wherein the system controller is further configured to initiate a protocol to reduce the speed of the propulsion platform by reducing, according to a predetermined rate of change, the frequency of the variable frequency clock to which the propulsion platform moves in synchronism.
10. The system of claim 1, wherein the propulsion platform includes an attachment point to which one of a plurality of payload platforms is removably attached, the one payload platform configured to:
 - include a plurality of seats;
 - support at least one live action performer;
 - support at least one animated three-dimensional figure;
 - support at least one three-dimensional representation of scenery; or
 - support a three-dimensional representation of mechanical equipment.
11. The system of claim 1, wherein the variable frequency clock is associated with a mode of operation.
12. The system of claim 1, wherein the propulsion platform is further controlled by event triggers.
13. A system, comprising:
 - a system controller configured to generate and wirelessly broadcast a plurality of individually addressed variable frequency clocks; and

a plurality of propulsion platforms, each propulsion platform having an address corresponding to at least one of the individually addressed variable frequency clocks;

wherein each propulsion platform supports a corresponding payload platform and is configured to move, along a predefined path, in synchronism with its corresponding one of the plurality of individually addressed variable frequency clocks.

14. The system of claim 13, further comprising:

a plurality of entertainment devices positioned along the predefined path, that operate in synchronism with a corresponding one of the plurality of individually addressed variable frequency clocks received from the system controller.

15. The system of claim 13, wherein each propulsion platform changes its corresponding payload platform's orientation in any one of or in any combination of yaw, sway, and surge.

16. The system of claim 15, further comprising:

a motion base disposed between each propulsion platform and its corresponding payload platform.

17. The system of claim 16, wherein each motion base changes the corresponding payload platform's orientation relative to the orientation of the platform in any one of or in any combination of yaw, roll, pitch, and heave.

18. The system of claim 16, wherein each motion base includes an attachment point to which one of a plurality of payload platforms is removably attached, the one payload platform configured to:

include a plurality of seats;

support at least one live action performer;

support at least one animated three-dimensional figure;

support at least one three-dimensional representation of scenery; or

support a three-dimensional representation of mechanical equipment.

19. The system of claim 13, wherein at least one of the plurality of propulsion platforms is a trackless vehicle.
20. The system of claim 13, wherein at least one of the plurality of propulsion platforms further comprises:
 - an object detection device configured to detect an object in the at least one of the plurality of propulsion platform's path, and
 - a communication device configured to transmit an alert to the system controller.
21. The system of claim 20, wherein the system controller is further configured to initiate a protocol to reduce the speed of the plurality of propulsion platforms by reducing, according to a predetermined rate of change, the frequency of each individually addressed variable frequency clock, wherein a synchronized reduction of the frequency causes the plurality of propulsion platforms to slow in synchronism with each other.
22. The system of claim 13, wherein each propulsion platform includes an attachment point to which one of a plurality of payload platforms is removably attached, the one payload platform configured to:
 - include a plurality of seats;
 - support at least one live action performer;
 - support at least one animated three-dimensional figure;
 - support at least one three-dimensional representation of scenery; or
 - support a three-dimensional representation of mechanical equipment.
23. The system of claim 13, wherein each propulsion platform is further controlled by event triggers.