CLAIMS

1. A ride attraction system, comprising:

a first tower track and a second tower track;

a first ride vehicle coupled to the first tower track and comprising at least one seat, wherein the first ride vehicle is configured to move with two or more degrees of freedom relative to the first tower track;

a second ride vehicle coupled to the second tower track and comprising at least one seat, wherein the second ride vehicle is configured to move with two or more degrees of freedom relative to the second tower track;

a first user input device coupled to the first ride vehicle and a second user input device coupled to the second ride vehicle;

an image system configured to display a ride environment, wherein the first user input device and the second user input device are configured to interact with elements of the displayed ride environment; and

a controller communicatively coupled to the first ride vehicle, the second ride vehicle, and the image system, wherein the controller is configured to control movement of the first ride vehicle and the second ride vehicle based on signals output in response to interactions of the first user input device and the second user input device with the elements of the displayed ride environment.

2. The ride attraction system of claim 1, wherein interactions of the first user input device with a first subset of the elements of the displayed ride environment are configured to cause the first ride vehicle to move in a first motion pattern, wherein interactions of the first user input device with a second subset of the elements of the displayed ride environment are configured to cause the first ride vehicle to move in a second motion pattern, and wherein interactions of the second input user device with the elements of the displayed ride environment are configured to cause the first ride vehicle to move in a third motion pattern, or some combination thereof.

3. The ride attraction system of claim 2, wherein the first motion pattern is different than the second motion pattern.

4. The ride attraction system of claim 2, wherein the first motion pattern is configured to move the first ride vehicle in a first direction along the first tower track, and the third motion pattern is configured to move the first ride vehicle in a second direction, opposite the first direction, along the first tower track.

5. The ride attraction system of claim 2, wherein interactions of the first user input device with the second subset of the elements are configured to cause the second ride vehicle to move in a fourth motion pattern.

6. The ride attraction system of claim 5, wherein the third motion pattern and the fourth motion pattern are configured to cause the first ride vehicle and the second ride vehicle, respectively, to pitch, yaw, roll, or some combination thereof.

7. The ride attraction system of claim 5, wherein the first ride vehicle moves in the first motion pattern while the second ride vehicle moves in the fourth motion pattern.

8. The ride attraction system of claim 2, wherein the first motion pattern and the second motion pattern comprise at least one of a pitch, yaw or roll motion relative to the first tower track.

9. The ride attraction system of claim 1, wherein the first ride vehicle comprises a platform to which the at least one seat is coupled and a support frame coupled to the platform

and to the first tower track, wherein motion of the platform causes the at least one seat to pitch, yaw, or roll.

10. The ride attraction system of claim 1, wherein the image system comprises a projection system configured to project the elements of the displayed ride environment onto portions of the ride attraction system, and wherein the elements of the displayed ride environment comprise images of characters, targets, or a combination thereof.

11. The ride attraction system of claim 1, wherein the image system comprises a plurality of visualization devices configured to display the ride environment to one or more riders individually, and wherein the plurality of visualization devices comprise an augmented reality (AR) system, a virtual reality (VR) system, or a combination thereof.

12. The ride attraction system of claim 1, wherein a first subset of the elements are associated with the first ride vehicle and a second subset of the elements of the displayed ride environment are associated with the second ride vehicle.

13. The ride attraction system of claim 1, wherein one or both of the first user input device or the second user input device comprises a shooting device configured to virtually shoot at the elements of the displayed ride environment, wherein hitting the elements of the ride environment earns points.

14. The ride attraction system of claim 1, wherein the first user input device comprises a steering device, wherein the steering device is configured to output a steering signal to the controller, wherein the controller is configured to cause the first ride vehicle to pitch, yaw, roll, move axially along the first tower track, or some combination thereof, based on the steering signal, and wherein dodging incoming interactions earns points.

15. A ride attraction system, comprising:

a plurality of tower tracks;

a plurality of ride vehicles, wherein each ride vehicle of the plurality of ride vehicles comprises a stepped platform configured to provide tiered seating and wherein each ride vehicle of the plurality of ride vehicles is coupled to a respective tower track of the plurality of tower tracks and configured to move in one or more degrees of freedom relative to the respective tower track of the plurality of tower tracks and independently of other ride vehicles of the plurality of ride vehicles;

at least one user input device associated with each ride vehicle of the plurality of ride vehicles, wherein each user input device of the at least one user input device is configured to receive user inputs and provide user input signals; and

a controller configured to receive the user input signals from the at least one user input device and to provide instructions to a ride vehicle controller of an individual ride vehicle of the plurality of ride vehicles to execute a motion pattern of the individual ride vehicle based on the received user input signals, wherein the motion pattern of the individual ride vehicle comprises movement along an axis of the respective tower track, wherein the individual ride vehicle moves independently of other ride vehicles of the plurality of ride vehicles while executing the motion pattern.

16. The ride attraction system of claim 15, comprising an image system, the image system comprising an augmented reality (AR) system, a virtual reality (VR) system, a projection system, or a combination thereof, and wherein the controller is configured to receive the user input signals as indicative of user interaction with the image system via the at least one user input device.

17. The ride attraction system of claim 15, wherein the controller is configured to determine a point total accumulated by each ride vehicle of the plurality of ride vehicles, wherein

the point total is based on interactions between the at least one user input device associated with each ride vehicle of the plurality of ride vehicles and elements of a displayed ride environment, wherein the controller is configured to initiate the motion pattern of the individual ride vehicle based on a determination that an accumulated point total of the individual ride vehicle is greater or less than a point threshold.

18. The ride attraction system of claim 17, wherein interactions between the at least one user input device associated with each ride vehicle of the plurality of ride vehicles and the elements of the displayed ride environment are configured to trigger one or more special effects, wherein the one or more special effects comprise air blasts, cold wind, heat, water spray, smoke, fog, sound, lighting effects, or some combination thereof.

19. A method, comprising;

receiving user input signals, at a controller, from a user input device associated with a ride vehicle of a plurality of ride vehicles;

determining, via the controller, a respective point total accumulated by the ride vehicle of the plurality of ride vehicles based on the received user input signals; and

triggering, via the controller, a first motion pattern of the ride vehicle of the plurality of ride vehicles based on a first point total accumulated by the ride vehicle of the plurality of ride vehicles reaching a first point threshold, wherein the first motion pattern is configured to cause the ride vehicle to move in an axial direction along a tower track, pitch, yaw, roll, or some combination thereof, and

triggering, via the controller, a second motion pattern of the ride vehicle of the plurality of ride vehicles based on a second point total of the ride vehicle of the plurality of ride vehicles reaching a second point threshold.

20. The method of claim 19, wherein determining the first point total or the second point total accumulated by the ride vehicle is based at least in part on additional user input signals from user input devices of other ride vehicles of the plurality of ride vehicles.