

CLAIMS:

1. A dark ride tower system for an amusement park, comprising:
 - a tower comprising first and second levels, the first level comprising a stationary room having stationary walls and the second level comprising an adaptable room having adaptable walls configured to be rearranged into a plurality of physical configurations;
 - a ride vehicle configured to carry one or more guests of the amusement park;
 - a lift system configured to alternately move the ride vehicle between the first and second levels;
 - a first projection system configured to generate projection mapping on the stationary walls to simulate movement of the ride vehicle relative to the stationary room while the ride vehicle is disposed within the stationary room;
 - a second projection system configured to generate projection mapping on the adaptable walls to present a show scene while the ride vehicle is disposed within the adaptable room; and
 - a controller configured to synchronize movement of the ride vehicle caused by the lift system, rearrangement of the adaptable walls, and generation of the projection mapping on the stationary and adaptable walls via the first and second projection systems.
2. The dark ride tower system of claim 1, wherein the lift system is configured to translate and rotate the ride vehicle relative to an imaginary central axis of the lift system.
3. The dark ride tower system of claim 2, wherein the lift system is configured to move the ride vehicle with multiple degrees of freedom relative to the imaginary central axis of the lift system.
4. The dark ride tower system of claim 1, wherein the lift system is configured to pitch, roll, and/or heave the ride vehicle while the first projection system

generates the projection mapping on the stationary walls to simulate horizontal and/or lateral movement of the ride vehicle.

5. The dark ride tower system of claim 1, wherein the controller is configured to actuate the adaptable walls to rearrange from a first physical configuration to a second physical configuration while the ride vehicle is disposed within the stationary room.

6. The dark ride tower system of claim 1, wherein the controller is configured to actuate the adaptable walls of the adaptable room to align vertically with the stationary walls of the stationary room to create a fully enclosed tower.

7. The dark ride tower system of claim 6, wherein the first and second projection systems are configured to generate synchronized projection mapping on both the adaptable walls and the stationary walls while the adaptable walls and the stationary walls are vertically aligned to simulate a gravity drop visually.

8. The dark ride tower system of claim 7, wherein the lift system is configured to drop the ride vehicle to simulate the gravity drop physically.

9. The dark ride tower system of claim 1, comprising one or more additional physical scene elements disposed within the adaptable room while the ride vehicle is disposed within the adaptable room.

10. The dark ride tower system of claim 1, wherein the second level is disposed above the first level in the tower.

11. The dark ride tower system of claim 1, wherein the second level is disposed below the first level in the tower.

12. The dark ride tower system of claim 1, wherein the lift system comprises a suspension lift system or a ground lift system.

13. The dark ride tower system of claim 1, wherein the dark ride tower system is one of a plurality of dark ride tower systems of a dark ride tower system complex.

14. A method, comprising:

using a lift system to alternately move a ride vehicle between a first level comprising a stationary room having stationary walls and a second level comprising an adaptable room having adaptable walls configured to be rearranged into a plurality of physical configurations;

generating projection mapping, via a first projection system, on the stationary walls to simulate movement of the ride vehicle relative to the stationary room while the ride vehicle is disposed within the stationary room;

actuating the adaptable walls to rearrange from a first physical configuration to a second physical configuration while the ride vehicle is disposed within the stationary room; and

generating projection mapping, via a second projection system, on the adaptable walls to present a show scene while the ride vehicle is disposed within the adaptable room.

15. The method of claim 14, comprising using the lift system to pitch, roll, and/or heave the ride vehicle while the first projection system generates the projection mapping on the stationary walls to simulate horizontal and/or lateral movement of the ride vehicle.

16. The method of claim 14, comprising actuating the adaptable walls of the adaptable room to align vertically with the stationary walls of the stationary room to create a fully enclosed tower.

17. The method of claim 16, comprising generating, via the first and second projection systems, synchronized projection mapping on both the adaptable walls and the stationary walls while the adaptable walls and the stationary walls are vertically aligned to simulate a gravity drop visually.

18. The method of claim 17, comprising using the lift system to drop the ride vehicle to simulate the gravity drop physically.

19. A dark ride system for an amusement park, comprising:
a stationary room having stationary walls;
an adaptable room having adaptable walls configured to be rearranged into a plurality of physical configurations;
a ride vehicle configured to carry one or more guests of the amusement park;
a lift system configured to alternately move the ride vehicle between the stationary and adaptable room;
a first projection system configured to generate projection mapping on the stationary walls to simulate movement of the ride vehicle relative to the stationary room while the ride vehicle is disposed within the stationary room;
a second projection system configured to generate projection mapping on the adaptable walls to present a show scene while the ride vehicle is disposed within the adaptable room; and
a controller configured to synchronize movement of the ride vehicle caused by the lift system, rearrangement of the adaptable walls, and generation of the projection mapping on the stationary and adaptable walls via the first and second projection systems.

20. The dark ride system of claim 1, wherein the controller is configured to actuate the adaptable walls to rearrange from a first physical configuration to a second physical configuration while the ride vehicle is disposed within the stationary room.