

CLAIMS:

1. A ride system, comprising:
 - a plurality of ride vehicles, wherein each ride vehicle of the plurality of ride vehicles comprises:
 - a rider support configured to carry a rider;
 - a support actuator coupled to the rider support and a base of the ride vehicle, wherein the support actuator is configured to move the rider support relative to the base; and
 - a ride vehicle movement system integrated with the base and configured to move the ride vehicle relative to a ride area; and
 - a controller configured to control the support actuator of each ride vehicle of the plurality of ride vehicles individually and the ride vehicle movement system of each ride vehicle of the plurality of ride vehicles individually based at least in part on:
 - instructions, stored in memory, for performing a choreographed routine for the plurality of ride vehicles; and
 - an input received from a selected ride vehicle of the plurality of ride vehicles, wherein the input is indicative of an adjustment to the support actuator of each ride vehicle of the plurality of ride vehicles, the ride vehicle movement system of each ride vehicle of the plurality of ride vehicles, or both, and wherein the input is based on a correlative adjustment to the support actuator of the selected ride vehicle, the ride vehicle movement system of the selected ride vehicle, or both.
2. The ride system of claim 1, wherein the choreographed routine comprises choreographed riding support movement instructions for each rider support and each ride vehicle movement system of each ride vehicle of the plurality of ride vehicles.

3. The ride system of claim 1, wherein the choreographed routine comprises a designation of the selected ride vehicle of the plurality of ride vehicles based at least in part on a time sequence of the choreographed routine, and wherein the selected ride vehicle is a first ride vehicle of the plurality of ride vehicles in a first time period during the time sequence, and the selected ride vehicle is a second ride vehicle of the plurality of ride vehicles in a second time period during the time sequence.
4. The ride system of claim 1, comprising a plurality of linkages coupled to one another, wherein a first linkage of the plurality of linkages is coupled to the support actuator and a second linkage of the plurality of linkages is coupled to the rider support.
5. The ride system of claim 4, wherein the plurality of linkages are configured to move relative to one another and relative to the base to move the rider support vertically and longitudinally relative to the base.
6. The ride system of claim 1, wherein the input is received from a rider controller configured to be controlled by the rider positioned on the rider support of the selected ride vehicle.
7. The ride system of claim 6, wherein the input comprises a shift in weight, an input to a hand controller of the rider controller, or both.
8. The ride system of claim 1, comprising a ride station configured to accommodate the plurality of ride vehicles.

9. The ride system of claim 8, wherein the controller is configured to receive an input indicative of a party size and to dispatch a subset of the plurality of ride vehicles from the ride station into the ride area based at least in part on the party size, and wherein

the subset of the plurality of ride vehicles comprises some or all of the ride vehicles of the plurality of ride vehicles.

10. A ride system, comprising:

one or more ride vehicles, wherein each ride vehicle of the one or more ride vehicles comprises:

a rider support configured to carry a rider;

a support actuator coupled to the rider support and to a base of the ride vehicle, wherein the support actuator is configured to move the rider support relative to the base;

a ride vehicle movement system coupled to the base and configured to move the ride vehicle to traverse a ride area; and

a roll system configured to move the rider support or the base angularly relative to the ride area;

~~11. The ride system of claim 10, comprising:~~

a display system configured to provide a cinematic presentation for viewing by the rider of each ride vehicle; and

a controller configured to:

instruct the display system to provide the cinematic presentation; and

control the support actuator, the ride vehicle movement system, and the

roll system of each ride vehicle of the one or more ride vehicles individually based on a choreographed routine of the one or more ride vehicles that corresponds to the cinematic presentation and an input received from a selected ride vehicle of the one or more ride vehicles, wherein the input is indicative of an adjustment to the movement of the rider support, the ride vehicle, or both, of the selected ride vehicle.

~~12.11.~~ The ride system of ~~claim 1110~~, wherein the controller is configured to control the cinematic presentation based at least in part on the input received from the selected ride vehicle, and wherein the cinematic presentation comprises a plurality of unique storylines, each unique storyline of the plurality of unique storylines corresponding to a unique choreographed routine of the one or more ride vehicles.

~~13.12.~~ The ride system of ~~claim 1110~~, wherein the one or more ride vehicles comprise a plurality of ride vehicles, wherein the choreographed routine comprises a designation of the selected ride vehicle of the plurality of ride vehicles based at least in part on a time sequence of the choreographed routine, and wherein the selected ride vehicle is a first ride vehicle of the plurality of ride vehicles in a first time period during the time sequence, and the selected ride vehicle is a second ride vehicle of the plurality of ride vehicles in a second time period during the time sequence.

~~14.13.~~ The ride system of ~~claim 1110~~, wherein the one or more ride vehicles comprise a plurality of ride vehicles, and wherein the controller is configured to control the movement of one or more other ride vehicles of the plurality of ride vehicles different from the selected ride vehicle based at least in part on the input received from the selected ride vehicle.

~~15.14.~~ The ride system of ~~claim 1110~~, comprising a ride station configured to accommodate the one or more ride vehicles, wherein the one or more ride vehicles are configured to transition from the ride station to a position proximate to a screen of the display system.

~~16.15.~~ A ride system, comprising: ~~a track;~~

a track;

a ride vehicle configured to travel along the track, wherein the ride vehicle comprises:

a plurality of rider supports, wherein each rider support of the plurality of rider supports is configured to carry a respective rider;

a plurality of support actuators, wherein each support actuator of the plurality of support actuators is coupled to a respective rider support of the plurality of rider supports and a base of the ride vehicle, and each support actuator of the plurality of support actuators is configured to move the respective rider support relative to the base;

a ride vehicle movement system integrated with the base and configured to move the ride vehicle along the track; and

a roll system configured to move the base and the plurality of rider supports angularly relative to the track; and

a controller configured to control the plurality of support actuators, the ride vehicle movement system, and the roll system based at least in part on:

instructions, stored in memory, for performing a choreographed routine of the plurality of rider supports; and

an input received from a selected rider support of the plurality of rider supports, wherein the input is indicative of an adjustment to each support actuator of the plurality of support actuators, and wherein the input is based on a correlative adjustment to the support actuator coupled to the selected rider support.

~~17.~~16. The ride system of ~~claim 16~~15, wherein the choreographed routine comprises choreographed movement instructions for each support actuator of the plurality of support actuators, the ride vehicle movement system, and the roll system.

~~17.~~18. The ride system of ~~claim 16~~15, comprising a plurality of linkage assemblies, wherein each support actuator of the plurality of support actuators is coupled to a respective linkage assembly of the plurality of linkage assemblies and to the base of the

ride vehicle, and each linkage assembly of the plurality of linkage assemblies is coupled to a respective rider support of the plurality of rider supports.

~~19.18.~~ The ride system of ~~claim 16~~15, wherein the controller is configured to control movement of one or more other rider supports of the plurality of rider supports different from the selected rider support based at least in part on the input received from the selected rider support.

~~20.19.~~ The ride system of ~~claim 16~~15, wherein the selected rider support comprises a rider controller configured to receive the input from a rider riding the selected rider support, and wherein the rider controller comprises a joystick, a hand controller, or both.

20. A ride system, comprising:

a plurality of ride vehicles; and

a controller comprising a memory and a processor, wherein the processor is configured to:

receive an input indicative of a choreographed routine of the plurality of ride vehicles, wherein the choreographed routine comprises a respective ride path and respective choreographed movement for each ride vehicle of the plurality of ride vehicles;

receive an adjustment to the respective ride path, the respective choreographed movement, or both, of a selected ride vehicle of the plurality of ride vehicles; and

control the respective ride path, the respective choreographed movement, or both, of other ride vehicles of the plurality of ride vehicles based on the adjustment.

21. The ride system of claim 20, wherein the choreographed routine corresponds to a cinematic presentation, and wherein the processor is configured to control the cinematic presentation based at least in part on the adjustment to the respective ride path, the respective choreographed movement, or both, of the selected ride vehicle.

22. The ride system of claim 21, comprising a display system configured to provide the cinematic presentation for viewing by riders of the plurality of ride vehicles.

23. The ride system of claim 21, wherein the cinematic presentation comprises a scene, and wherein the choreographed routine simulates movement of the plurality of ride vehicles within the scene.

24. The ride system of claim 20, wherein the processor is configured to:

receive an input indicative of a party size;

dispatch a subset of the plurality of ride vehicles from a ride station into a ride area based at least in part on the party size; and

control the subset of the plurality of ride vehicles based on the choreographed routine.

25. The ride system of claim 20, wherein each ride vehicle of the plurality of ride vehicles comprises:

a support actuator configured to move a rider relative to a base of the ride vehicle; and

a ride vehicle movement system configured to move the base of the ride vehicle relative to a ride area.

26. The ride system of claim 25, wherein the choreographed routine comprises movement of the support actuator, the ride vehicle movement system, or both, of each ride vehicle of the plurality of ride vehicles.

27. The ride system of claim 25, wherein the support actuator of each ride vehicle of the plurality of ride vehicles comprises a piston, a hydraulic cylinder, a pneumatic cylinder, or a combination thereof.

28. The ride system of claim 20, wherein the input is received from a rider controller configured to be controlled by a rider positioned on the selected ride vehicle, and wherein the input comprises a shift in weight, an input to a hand controller of the rider controller, or both.

29. A tangible, non-transitory, computer-readable media, comprising instructions that, when executed by a processor, cause the processor to:

control each ride vehicle of a plurality of ride vehicles individually based on a choreographed routine, wherein the choreographed routine comprises choreographed riding support movement instructions for each ride vehicle of a plurality of ride vehicles;

receive an input indicative of an adjustment to the choreographed riding support movement instructions of a selected ride vehicle of the plurality of ride vehicles; and

adjust the choreographed riding support movement instructions of other ride vehicles of the plurality of ride vehicles based on the input.

30. The tangible, non-transitory, computer-readable media of claim 29, wherein the choreographed routine comprises a designation of the selected ride vehicle of the plurality of ride vehicles based at least in part on a time sequence of the choreographed routine, and wherein the selected ride vehicle is a first ride vehicle of the plurality of ride vehicles in a first time period during the time sequence, and the selected ride vehicle is a second ride vehicle of the plurality of ride vehicles in a second time period during the time sequence.

31. The tangible, non-transitory, computer-readable media of claim 29, comprising instructions that, when executed by the processor, cause the processor to present a cinematic presentation for viewing by riders of the plurality of ride vehicles.

32. The tangible, non-transitory, computer-readable media of claim 31, wherein the cinematic presentation comprises a plurality of storylines, and wherein the tangible, non-transitory, computer-readable media comprises instructions that, when executed by the processor, cause the processor to select a particular storyline of the plurality of storylines based on the input.

33. The tangible, non-transitory, computer-readable media of claim 29, comprising instructions that, when executed by the processor, cause the processor to:

receive an input indicative of a party size;

dispatch a subset of the plurality of ride vehicles from a ride station into a ride area based at least in part on the party size; and

control the subset of the plurality of ride vehicles based on the choreographed routine.

34. The tangible, non-transitory, computer-readable media of claim 29, wherein the choreographed riding support movement instructions for each ride vehicle of the plurality of ride vehicles are configured to cause the ride vehicle to move in a planar direction, spin, turn, roll, or a combination thereof, during a ride sequence.

35. A method of controlling a ride system, the method comprising:

receiving, via a processor, an input indicative of a choreographed routine of a plurality of ride vehicles, wherein the choreographed routine comprises a respective ride path and respective choreographed movement for each ride vehicle of the plurality of ride vehicles;

receiving, via the processor, an input from a selected ride vehicle of the plurality of ride vehicles, wherein the input is indicative of an adjustment to the respective ride path, the respective choreographed movement, or both, of the selected ride vehicle; and

controlling, via the processor, the respective ride path, the respective choreographed movement, or both, of other ride vehicles of the plurality of ride vehicles based on the input.

36. The method of claim 35, comprising presenting, via the processor, a cinematic presentation for viewing by riders of the plurality of ride vehicles.

37. The method of claim 36, wherein the cinematic presentation comprises a plurality of storylines, and wherein the method comprises selecting, via the processor, a particular storyline of the plurality of storylines based on the input.

38. The method of claim 36, wherein the cinematic presentation comprises a scene, and wherein the choreographed routine simulates movement of the plurality of ride vehicles within the scene.

39. The method of claim 35, comprising:

receiving, via the processor, an input indicative of a party size;

dispatching, via the processor, a subset of the plurality of ride vehicles from a ride station into a ride area based at least in part on the party size; and

controlling, via the processor, the subset of the plurality of ride vehicles based on the choreographed routine.