

CLAIMS:

1. A ride system, comprising:
 - a ride vehicle comprising a buoyant material configured to float in a liquid;
 - a bogie comprising a vehicle support positioned under the ride vehicle, wherein the bogie is configured to travel along a track; and
 - an extender coupled to the vehicle support and coupled to the ride vehicle,wherein the extender is configured to transition between a retracted configuration and an extended configuration to allow the ride vehicle to float in the liquid within a range of motion relative to the vehicle support.
2. The ride system of claim 1, wherein the extender is one of a plurality of extenders coupled to the vehicle support and the ride vehicle, and wherein each extender of the plurality of extenders is individually operable to transition between respective retracted configurations and extended configurations.
3. The ride system of claim 1, wherein the extender comprises a piston, which comprises a piston arm configured to transition out of a piston housing as the piston transitions from the retracted configuration to the extended configuration.
4. The ride system of claim 1, wherein the extender comprises a connector insert and a base receptacle, and wherein the connector insert is configured to extend into the base receptacle when the extender is in the retracted configuration.
5. The ride system of claim 4, comprising a flexible cable or a rigid rod moveably coupling a body of the connector insert to the base receptacle.
6. The ride system of claim 4, wherein the connector insert is coupled to the vehicle support and the base receptacle is coupled to the ride vehicle.

7. The ride system of claim 1, wherein the extender is one of a plurality of extenders coupled to the vehicle support and the ride vehicle in a triangular arrangement, and wherein each extender of the plurality of extenders is individually operable to transition between respective retracted configurations and extended configurations such that the ride vehicle is moveable side-to-side and forward-to-backward.
8. The ride system of claim 1, wherein the extender is configured to be actuated.
9. The ride system of claim 1, wherein the extender comprises an extending portion and a housing portion, and wherein the extending portion is configured to be retracted into the housing portion via a winch.
10. The ride system of claim 1, wherein the extender comprises a piston arm and a piston housing, and wherein a position of the piston arm relative to the piston housing is configured to be adjusted via hydraulics.
11. A ride system, comprising:
a ride path including an aerial portion and an aquatic portion;
a track extending along the path;
a bogie configured to engage with and travel along the track;
a ride vehicle configured to transport riders;
a vehicle support of the bogie positioned under the ride vehicle and configured to support the ride vehicle through the aerial portion of the ride path; and
an extender coupling the ride vehicle to the vehicle support, wherein the extender is configured to retract and secure the ride vehicle to the vehicle support through the aerial portion of the ride path, and wherein the extender is configured to extend and retract in response to buoyancy of the ride vehicle positioned within a liquid through the aquatic portion of the ride path.

12. The ride system of claim 11, wherein the bogie comprises a motion base configured to raise and lower the vehicle support relative to the track.
13. The ride system of claim 11, wherein the extender is one of a plurality of extenders.
14. The ride system of claim 13, wherein the plurality of extenders is configured to passively allow transitioning between respective extended configurations and respective retracted configurations.
15. The ride system of claim 13, wherein the plurality of extenders is configured to be actuated into respective extended configurations and respective retracted configurations.
16. The ride system of claim 11, comprising a locking feature configured to secure the extender into a fixed configuration.
17. The ride system of claim 11, wherein the extender comprises a piston, which includes a piston arm configured to transition into and out of a piston housing.
18. A method of ride system operation, comprising:
 - positioning a ride vehicle into a body of a liquid using a bogie coupled to the ride vehicle via a ride vehicle support, which is coupled to the ride vehicle via an extender;
 - transitioning the extender from a retracted configuration to an extended configuration as the ride vehicle becomes buoyant in the liquid; and
 - allowing the ride vehicle to move within a motion envelope defined by the retracted configuration and the extended configuration as the ride vehicle experiences buoyant forces in the liquid.

19. The method of ride system operation of claim 18, comprising lifting the ride vehicle out of the liquid by moving the bogie.
20. The method of ride system operation of claim 19, wherein lifting the ride vehicle causes the extender to transition to a fully retracted configuration.