CLAIMS:

1. A ride system, comprising:
a track; and
an overhung ride assembly, wherein the overhung ride assembly comprises:
a transport platform coupled to the track;
a ride vehicle; and
a heave system extending between the transport platform and the ride vehicle and configured to heave the ride vehicle relative to the transport platform, wherein the heave system comprises an extendible tube defining a variable volume configured to store a gaseous fluid, and wherein the extendible tube is configured to extend in response to a lowering of the ride vehicle away from the transport platform by the heave system such that the gaseous fluid within the variable volume of the extendible tube enables a fluid force that biases the extendible tube toward a contracted configuration to assist the heave system with a lifting of the ride vehicle toward the transport platform.

2. The ride system of claim 1, wherein the extendible tube comprises:
a reservoir configured to store the gaseous fluid; and
a body fluidly coupled to the reservoir and configured to receive the gaseous fluid from the reservoir as the extendible tube is extended in response to the lowering of the ride vehicle away from the transport platform.

3. The ride system of claim 2, wherein the extendible tube comprises a plunger extending into the body of the extendible tube and configured to move away from and partially out of the body of the extendible tube in response to the lowering of the ride vehicle away from the transport platform.

4. The ride system of claim 1, wherein the heave system of the overhung ride assembly comprises a strong arm assembly extending between the transport platform and the ride vehicle.

5. The ride system of claim 4, comprising a motor configured to force actuation of the

strong arm assembly against resistance caused by the fluid force enabled by the gaseous fluid within the variable volume of the extendible tube.

6. The ride system of claim 4, wherein the strong arm assembly comprises:

a first rigid arm coupled, via a first passive hinge, to the ride vehicle or a motion base platform between the strong arm assembly and the ride vehicle; and

a second rigid arm coupled to the transport platform via a transport hinge and to the first rigid arm via a second passive hinge, wherein the second passive hinge enables an angle formed by the first rigid arm and the second rigid arm to change in response to the lifting of the ride vehicle toward to the transport platform and the lowering of the ride vehicle away from the transport platform.

7. The ride system of claim 6, comprising a motor configured to:

turn the transport hinge in a first circumferential direction to drive the second rigid arm into a first rotation that causes the lowering of the ride vehicle away from the transport platform; and

turn the transport hinge in a second circumferential direction to drive the second rigid arm into a second rotation that causes the lifting of the ride vehicle toward the transport platform.

8. The ride system of claim 1, comprising a motion base platform disposed between the ride vehicle and the heave system, wherein the motion base platform is configured to roll, pitch, and/or yaw the ride vehicle relative to the strong arm assembly.

9. The ride system of claim 8, wherein the motion base platform comprises an octopod or a Stewart platform.

10. The ride system of claim 1, wherein the heave system comprises a winch assembly, the winch assembly comprising:

a spool;

a cable coupled to the spool and to the ride vehicle or a motion base platform between the ride vehicle and the cable, wherein the spool is configured to turn in a first circumferential

direction to wind the cable about the spool to cause the lifting of the ride vehicle toward the transport platform, and to turn in a second circumferential direction opposite to the first circumferential direction to unwind the cable from the spool to cause the lowering of the ride vehicle away from the transport platform; and

a motor configured to drive the spool into rotation in at least the first circumferential direction.

11. The ride system of Claim 1, wherein the transport platform is coupled to the track via wheel assemblies configured to enable movement of the transport platform along the track.

12. The ride system of Claim 6, wherein the extendible tube comprises a first end connected to a stationary anchor of the transport platform.

13. The ride system of Claim 12, wherein the extendible tube comprises a second end connected to the second rigid arm of the strong arm assembly or to an extension of the transport hinge.

14. The ride system of Claim 13, wherein the extendible tube in the contracted configuration is configured to exert a force against the second rigid arm to pull the second rigid arm back toward the stationary anchor of the transport platform.

15. The ride system of Claim 6, comprising a pulley system configured to enable rotational movement of turn the transport hinge and/or second rigid arm of the strong arm assembly to move the plunger away from and partially out of the body of the extendible tube.