Claims

1. A boom coaster, comprising:

a passenger vehicle;

a track;

a bogie coupled to the passenger vehicle and the track and configured to move along the track; and

a simulated ride surface positioned above the track and beneath the passenger vehicle;

wherein the simulated ride surface is configured to imitate a path of the passenger vehicle, the bogie is coupled to a surface of the passenger vehicle via a leg member extending around the simulated ride surface, the leg member is coupled to the surface of the passenger vehicle via a rotational joint positioned at a center of gravity of the passenger vehicle, the rotational joint is configured to maintain a position of the passenger vehicle with respect to Earth as the passenger vehicle moves along various changes in the track, and the leg member suspends the passenger vehicle above the simulated ride surface such that the bogie and the track are blocked from a passenger view perspective of the passenger vehicle.

2. The boom coaster of claim 1, wherein the simulated ride surface is substantially flat region including a face disposed substantially parallel to a direction of movement of the passenger vehicle.

3. The boom coaster of claim 1, wherein the simulated ride surface comprises a trough configuration.

4. The boom coaster of claim 1, wherein the simulated ride surface comprises a gap, an elevated gap, an obstruction, or a surface transition.

5. The boom coaster of claim 1, comprising a carrier coupled to the bogie and the leg member.

6. The boom coaster of claim 1, comprising an additional passenger vehicle and an additional leg member, wherein the additional leg member extends around the simulated ride surface to couple the bogie to an additional surface of the additional passenger vehicle.

7. The boom coaster of claim 1, wherein the passenger vehicle comprises a wheel configured to spin when in contact with the simulated ride surface, to spin when the passenger vehicle moves along the ride path, or both.

8. The boom coaster of claim 1, wherein the passenger vehicle comprises a wheel that does not engage the simulated ride surface and is configured to spin via a motor.

9. A boom coaster, comprising:

a passenger vehicle;

a track;

a bogie coupled to the passenger vehicle and the track and configured to move along the track;

a simulated ride surface extending along a ride path defined by the track such that the simulated ride surface remains between the passenger vehicle and the track as the passenger vehicle moves along all or portions of the ride path;

a leg member extending around the simulated ride surface and coupling the bogie to the passenger vehicle to enable the passenger vehicle to move along the ride path; and

a rotational joint positioned at a center of gravity of the passenger vehicle, wherein the leg member is coupled to the passenger vehicle at the rotational joint, and the rotational joint is configured to maintain a position of the passenger vehicle with respect to Earth as the passenger vehicle moves along various changes in the track.

10. The boom coaster of claim 9, wherein the track is offset from the passenger vehicle along an axis transverse to a rotational axis of the rotational joint.

11. The boom coaster of claim 9, wherein the various changes in the track comprise a drop, a bump, or both.

12. A boom coaster, comprising:

a passenger vehicle;

a first track disposed below the passenger vehicle;

a first bogie coupled to the first track and configured to move along the first track;

a second track disposed below the passenger vehicle;

a second bogie coupled to the second track and configured to move along the second track;

a carrier coupled to the first bogie and the second bogie, wherein the carrier is configured to be directed along a ride path by the first bogie and the second bogie;

a simulated ride surface extending along a ride path defined by the first and second tracks such that the simulated ride surface remains between the passenger vehicle and the first and second tracks as the passenger vehicle moves along portions of the ride path; and

a leg member coupled to the carrier and the passenger vehicle, wherein the leg member is configured to extend around the simulated ride surface and couple to a surface of the passenger vehicle,

wherein the leg member is coupled to the passenger vehicle via a rotational joint positioned at a center of gravity of the passenger vehicle and the rotational joint is configured to maintain a position of the passenger vehicle with respect to Earth as the passenger vehicle moves along various changes in the first track, the second track, or both.

13. The boom coaster of claim 12, wherein the leg member is a substantially “J”-shaped boom.