Claims:

1. A gate system for an amusement park attraction, comprising:

a loading platform configured to rotate about a central vertical axis of the loading platform;

a gate positioned on the loading platform, wherein the gate is configured to transition between a closed position and an open position;

a gate actuation system coupled to the loading platform, wherein the gate actuation system is configured to actuate the gate between the closed position and the open position based on feedback indicative of a position of a ride vehicle relative to the gate.

2. The gate system of claim 1, comprising the ride vehicle, wherein the ride vehicle comprises a gate activation system configured to provide the feedback indicative of the position of the ride vehicle relative to the gate to the gate actuation system.

3. The gate system of claim 2, comprising an identifier of the gate activation system affixed to the ride vehicle, wherein the identifier comprises a retroreflective marker, an image, a barcode, or any combination thereof.

4. The gate system of claim 3, wherein the gate actuation system comprises a detector configured to detect the identifier, and the feedback indicative of the position of the ride vehicle relative to the gate comprises detection of the identifier.

5. The gate system of claim 2, wherein the gate activation system comprises a boss extending from the ride vehicle, the gate actuation system comprises a lever pivotably coupled to the gate, and the boss is configured to engage with the lever to pivot the gate from the closed position to the open position.

6. The gate system of claim 5, wherein the gate comprises a ratchet, the gate actuation system comprises a pawl configured to engage with the ratchet in the closed position of the gate, the pawl is pivotably coupled to the lever, and engagement of the boss with the lever causes disengagement of the pawl from the ratchet.

7. The gate system of claim 6, wherein the ratchet is rotationally fixed to the gate.

8. The gate system of claim 1, wherein the gate actuation system is configured to actuate the gate from the closed position to the open position based on feedback indicative of the ride vehicle being proximate to the gate and radially aligned with the gate relative to the central vertical axis.

9. The gate system of claim 8, wherein the gate actuation system is configured to receive the feedback indicative of the ride vehicle being radially aligned with the gate relative to the central vertical axis, execute a time delay, and subsequently actuate the gate from the closed position to the open position after execution of the time delay.

10. The gate system of claim 8, wherein the gate actuation system is configured to actuate the gate from the open position to the closed position based on feedback indicative of the ride vehicle transitioning from being proximate to the gate and radially aligned with the gate relative to the central vertical axis to being not proximate to the gate and/or not radially aligned with the gate relative to the central vertical axis.

11. The gate system of claim 1, comprising:

a motor configured to drive rotation of the loading platform; and

a controller configured to adjust operation of the motor based on the feedback indicative of the position of the ride vehicle relative to the gate.

12. The gate system of claim 1, comprising:

the ride vehicle, wherein the ride vehicle comprises a drive system configured to drive movement of the ride vehicle along a loading path extending about the loading platform; and

a controller configured to adjust operation of the ride vehicle based on the feedback indicative of the position of the ride vehicle relative to the gate.

13. A method for controlling passenger traffic during loading or unloading of a ride vehicle of an amusement park attraction, comprising:

guiding the ride vehicle along a loading path extending about a rotating loading platform;

detecting a position of the ride vehicle relative to a shotgun gate positioned on the rotating loading platform with a gate actuation system positioned on the rotating loading platform; and

automatically transitioning the shotgun gate from a closed position to an open position based on the position of the ride vehicle relative to the shotgun gate.

14. The method of claim 13, wherein detecting the position of the ride vehicle relative to the shotgun gate comprises detecting an identifier of the ride vehicle with a detector of the gate actuation system, wherein the identifier is a retroreflective marker.

15. The method of claim 14, comprising automatically transitioning the shotgun gate from the closed position to the open position based on the position of the ride vehicle being proximate to the shotgun gate and radially aligned with the shotgun gate relative to a rotational axis of the rotating loading platform.

16. The method of claim 13, comprising:

engaging a boss protruding from the ride vehicle with a lever of the gate actuation system; and

transferring motion of the lever to the shotgun gate to transition the shotgun gate from the closed position to the open position.

17. The method of claim 13, comprising automatically transitioning the shotgun gate from the open position to the closed position based on the ride vehicle transitioning from a first position proximate to and in alignment with the shotgun gate to a second position not proximate to and/or out of alignment with the shotgun gate.

18. A gate system for controlling passenger traffic in a loading zone of an amusement ride, comprising:

a rotating loading platform configured to rotate about a rotational axis, wherein the rotating loading platform comprises a shotgun gate disposed thereon;

a ride vehicle configured to travel along a loading path extending about the rotating loading platform, wherein the ride vehicle comprises a gate activation system configured to provide feedback indicative of a position of the ride vehicle relative to the shotgun gate; and

a gate actuation system configured to receive the feedback indicative of the position of the ride vehicle relative to the shotgun gate and to transition the gate between an open position and a closed position based on the feedback.

19. The gate system of claim 18, comprising a motor configured to drive rotation of the rotating loading platform and a controller configured to regulate operation of the motor, wherein the controller is configured to adjust operation of the motor based on the feedback indicative of the position of the ride vehicle relative to the shotgun gate to maintain radial alignment of the ride vehicle and the shotgun gate with respect to a rotational axis of the rotating loading platform.

20. The gate system of claim 18, wherein the gate activation system comprises a boss protruding from the ride vehicle, the gate actuation system comprises a lever pivotably coupled to the shotgun gate, and the boss and the lever are configured to engage with one another to transition the shotgun gate from the closed position to the open position, such that the shotgun gate is in the open position upon alignment of the ride vehicle with the shotgun gate.

21. The gate system of claim 18, wherein the gate activation system comprises a retroreflective marker affixed to the ride vehicle, and the gate actuation system comprises:

a detector configured to detect the retroreflective marker;

an actuator configured to actuate the shotgun gate between the open position and the closed position; and

a controller configured to control the actuator to actuate the shotgun gate from the closed position to the open position upon detection of the retroreflective marker by the detector indicative of alignment of the ride vehicle and the shotgun gate.