CLAIMS

What is claimed is:

1. A ride system comprising:

one or more ride vehicles including one or more seat rows;

a passenger loading platform including one or more shotgun gates respectively corresponding to the one or more seat rows;

a ride vehicle identifier configured to identify the one or more ride vehicles stopped at the passenger loading platform; and

a controller communicatively coupled to the one or more shotgun gates and the ride vehicle identifier, the controller configured to:

determine which seat row or rows of the one or more seat rows is in-service;

determine whether at least one seat row of the one or more seat rows is out-of-service based on a weight requirement;

determine whether at least one seat row of the one or more seat rows is out-of-service based on a maintenance requirement;

instruct to remain closed at least one shotgun gate of the one or more shotgun gates corresponding to at least one seat row of the one or more seat rows determined to be out-of-service; and

instruct to open any other shotgun gate of the one or more shotgun gates corresponding to at least one other seat row of the one or more seat rows determined to be in-service.

2. The ride system of claim 1, wherein the controller is further configured to:

receive data corresponding to an identity of the one or more ride vehicles prior to the one or more ride vehicles stopping at the passenger loading platform, wherein the data indicates at least which seat row or rows of the one or more seat rows is in-service or which seat row or rows of the one or more seat rows is out-of-service.

3. The ride system of claim 2, further comprising:

an interface device communicatively coupled to the controller,

wherein the controller is configured to receive the data corresponding to the identity of the one or more ride vehicles via the interface device; and

wherein the interface device is configured to receive the data corresponding to the identity of the one or more ride vehicles from a ride system operator or technician.

4. The ride system of claim 2, wherein the controller configured to determine which seat row or rows of the one or more seat rows is in-service or out-of-service is configured to at least:

read the received data corresponding to the identity of the one or more ride vehicles;

receive data indicative of an out-of-service triggering event from an on-board controller of the one or more ride vehicles;

receive the data indicative of the out-of-service triggering event from a seat row controller of the one or more ride vehicles; or

receive the data indicative of the out-of-service triggering event from a seat sensor system of the one or more ride vehicles.

5. The ride system of claim 1, wherein the ride vehicle identifier comprises a radio frequency identification (RFID) reader configured to identify the one or more ride vehicles, wherein the RFID reader is configured to:

read an RFID tag mounted to the one or more ride vehicles.

6. The ride system of claim 1, wherein the controller configured to instruct to remain closed the one or more shotgun gates is configured to at least:

refrain from sending a signal to open the one or more shotgun gates;

block a signal for opening the one or more shotgun gates from being sent; or

send a signal to close the one or more shotgun gates.

7. The ride system of claim 1, wherein the ride vehicle identifier comprises at least a radio frequency identification (RFID) reader, a barcode reader, a QR code reader, a camera, a light sensor, a color sensor, or a ride vehicle counter.

8. A method of controlling movement of a shotgun gate in a ride system, the method comprising:

identifying one or more ride vehicles stopped at a passenger loading platform, the one or more ride vehicles including one or more seat rows and the passenger loading platform including one or more shotgun gates respectively corresponding to the one or more seat rows;

determining which seat row or rows of the one or more seat rows is in-service;

determining whether at least one seat row of the one or more seat rows is out-of-service based on a weight requirement;

determining whether at least one seat row of the one or more seat rows is out-of-service based on a maintenance requirement;

instructing to remain closed at least one shotgun gate of the one or more shotgun gates corresponding to at least one seat row of the one or more seat rows determined to be out-of-service; and

instructing to open any other shotgun gate of the one or more shotgun gates corresponding to at least one other seat row of the one or more seat rows determined to be in-service.

9. The method of claim 8, further comprising:

receiving data corresponding to an identity of the one or more ride vehicles prior to the one or more ride vehicles stopping at the passenger loading platform, wherein the data corresponding to the identity of the one or more ride vehicles indicates at least which seat row or rows of the one or more seat rows is in-service or which seat row or rows of the one or more seat rows is out-of-service.

10. The method of claim 9, wherein the data corresponding to the identity of the one or more ride vehicles is received via an interface device configured to receive the data corresponding to the identity from a ride system operator or technician.

11. The method of claim 9, wherein the determining which seat row or rows of the one or more seat rows is in-service or out-of-service comprises at least:

reading the received data corresponding to the identity of the one or more ride vehicles;

receiving data indicative of an out-of-service triggering event from an on-board controller of the one or more ride vehicles;

receiving the data indicative of the out-of-service triggering event from a seat row controller of the one or more ride vehicles; or

receiving the data indicative of the out-of-service triggering event from a seat sensor system of the one or more ride vehicles.

12. The method of claim 8, wherein the identifying the one or more ride vehicles comprises:

identifying a unique identification attribute of the one or more ride vehicles.

13. The method of claim 8, wherein the instructing to remain closed the one or more shotgun gates comprises at least:

refraining from sending a signal to open the one or more shotgun gates;

blocking a signal for opening the one or more shotgun gates from being sent; or

sending a signal to close the one or more shotgun gates.

14. The method of claim 8, wherein the identifying the one or more ride vehicles comprises identifying via at least a radio frequency identification (RFID) reader, a barcode reader, a QR code reader, a light sensor, a color sensor, a camera, or a ride vehicle counter.

15. An apparatus for controlling movement of a shotgun gate in a ride system, the apparatus comprising:

at least one processor, wherein the at least one processor is configured to:

identify one or more ride vehicles stopped at a passenger loading platform, the one or more ride vehicles including one or more seat rows and the passenger loading platform including one or more shotgun gates respectively corresponding to the one or more seat rows;

determine which seat row or rows of the one or more seat rows is in-service;

determine whether at least one seat row of the one or more seat rows is out-of-service based on a weight requirement;

determine whether at least one seat row of the one or more seat rows is out-of-service based on a maintenance requirement;

instruct to remain closed at least one shotgun gate of the one or more shotgun gates corresponding to at least one seat row of the one or more seat rows determined to be out-of-service; and

instruct to open any other shotgun gate of the one or more shotgun gates corresponding to at least one other seat row of the one or more seat rows determined to be in-service.

16. The apparatus of claim 15, wherein the at least one processor is configured to:

receive data corresponding to an identity of the one or more ride vehicles prior to the one or more ride vehicles stopping at the passenger loading platform, wherein the data indicates at least which seat row or rows of the one or more seat rows is in-service or which seat row or rows of the one or more seat rows is out-of-service.

17. The apparatus of claim 16, wherein the at least one processor is configured to receive the data corresponding to the identity of the one or more ride vehicles via an interface device configured to receive the data corresponding to the identity of the one or more ride vehicles from a ride system operator or technician.

18. The apparatus of claim 16, wherein the at least one processor configured to determine which seat row or rows of the one or more seat rows is in-service or out-of-service is configured to at least:

read the received data corresponding to the identity of the one or more ride vehicles;

receive data indicative of an out-of-service triggering event from an on-board controller of the one or more ride vehicles;

receive the data indicative of the out-of-service triggering event from a seat row controller of the one or more ride vehicles; or

receive the data indicative of the out-of-service triggering event from a seat sensor system of the one or more ride vehicles.

19. The apparatus of claim 15, wherein the at least one processor is configured to identify the one or more ride vehicles via a ride vehicle identifier configured to identify a unique identification attribute of the one or more ride vehicles.

20. The apparatus of claim 15, wherein the at least one processor configured to instruct to remain closed the one or more shotgun gates is configured to at least:

refrain from sending a signal to open the one or more shotgun gates;

block a signal for opening the one or more shotgun gates from being sent; or

send a signal to close the one or more shotgun gates.