

CLAIMS:

1. An amusement ride system, comprising:
 - a ride area;
 - a viewing area;
 - a ride vehicle configured to move within the ride area and relative to the viewing area;
 - a plurality of transparent displays fixedly positioned between the ride area and the viewing area and configured to enable viewing of the ride vehicle from the viewing area; and
 - a controller comprising one or more memory devices and one or more processors, wherein the one or more processors are configured to: receive a sensor signal indicative of a position of the ride vehicle within the ride area; and control an augmented reality image on the plurality of transparent displays based on the position of the ride vehicle such that the augmented reality image is viewable together with the ride vehicle via the plurality of transparent displays, and the augmented reality image is configured to move across each of the plurality of transparent displays in coordination with movement of the ride vehicle relative to the viewing area.
2. The amusement ride system of claim 1, wherein each transparent display of the plurality of transparent displays is disposed between two protective barriers.
3. The amusement ride system of claim 1, wherein the ride area comprises a ride track along which the ride vehicle is configured to travel, and wherein the viewing area comprises one or more queues for guests waiting to enter the ride vehicle.
4. The amusement ride system of claim 3, wherein each transparent display of the plurality of transparent displays is offset from the viewing area by a first distance and offset from the ride track by a second distance to enable the amusement ride system to appear to portray interaction between the augmented reality image and the ride vehicle when viewed from the viewing area.
5. The amusement ride system of claim 4, wherein the first distance is between 0.5 meters and 1 meter, and the second distance is between 1 meter and 2 meters.
6. The amusement ride system of claim 1, comprising a ride area sensor configured to determine the position of the ride vehicle relative to the viewing area and output the sensor signal indicative of the position of the ride vehicle to the controller.
7. The amusement ride system of claim 6, wherein the ride area sensor comprises a camera.

8. The amusement ride system of claim 1, wherein each transparent display of the plurality of transparent displays comprises an organic light-emitting diode (OLED) display.
9. An augmented reality system, comprising:
a transparent display configured to enable viewing of a ride vehicle of an amusement ride system from a viewing area, wherein the viewing area comprises one or more queues for guests waiting to enter the ride vehicle; and
a controller comprising one or more memory devices and one or more processors, wherein the one or more processors are configured to: receive a first sensor signal indicative of a first position of the ride vehicle along a ride path; and control an augmented reality image on the transparent display based on the first position of the ride vehicle.
10. The augmented reality system of claim 9, wherein the one or more processors are configured to: receive a second sensor signal indicative of a second position of the ride vehicle along the ride path; and control the augmented reality image on the transparent display based on the second position of the ride vehicle.
11. The augmented reality system of claim 10, wherein the augmented reality system is configured to synchronize the augmented reality image with the ride vehicle being at the first position and at the second position.
12. The augmented reality system of claim 11, wherein the augmented reality image comprises an object that appears to be at a first object position while the ride vehicle is at the first position, and at a second object position while the ride vehicle is at the second position such that the object appears to move from the first object position to the second object position.
13. The augmented reality system of claim 12, wherein the object appears to change depth relative to the ride vehicle between the first object position and the second object position.
14. An amusement ride system, comprising:
a ride area;
a viewing area;
a ride vehicle configured to move within the ride area and relative to the viewing area; and
an augmented reality system comprising: a plurality of transparent displays configured to enable viewing of the ride vehicle from a viewing area and to separate the ride area from the viewing area; and a controller comprising one or more memory devices and a processor one or more processors, wherein the one or more processors are configured to: receive a first sensor signal

indicative of a first position of the ride vehicle within the ride area; and control an augmented reality image on the plurality of transparent displays based on the first position of the ride vehicle such that the augmented reality image is viewable together with the ride vehicle via the plurality of transparent displays and the augmented reality image moves across each transparent display of the plurality of transparent displays in coordination with movement of the ride vehicle relative to the viewing area.

15. The amusement ride system of claim 14, wherein the controller is configured to: receive a second sensor signal indicative of a second position of the ride vehicle within the ride area; and control which transparent display of the plurality of transparent displays will display the augmented reality image based on the second position of the ride vehicle.

16. The amusement ride system of claim 15, wherein the augmented reality image comprises an object that appears to be at a first object position while the ride vehicle is at the first position, and at a second object position while the ride vehicle is at the second position.

17. The amusement ride system of claim 16, wherein the one or more processors are configured to provide the object at the first and second object positions as an animation across the plurality of transparent displays.

18. The amusement ride system of claim 14, wherein the viewing area comprises one or more queues for guests waiting to enter the ride vehicle, and wherein the one or more processors are configured to control the augmented reality image to appear to guests in the viewing area as moving behind the ride vehicle as the ride vehicle moves within the ride area.

19. The amusement ride system of claim 14, comprising an augmented reality assembly, wherein the augmented reality assembly is fixedly disposed between the viewing area and the ride area, and the plurality of transparent displays are disposed within the augmented reality assembly and between supports of the augmented reality assembly.

20. The amusement ride system of claim 19, wherein the one or more processors are configured to provide the augmented reality image as an animation across the plurality of transparent displays.