

Claims:

1. A gap covering system for an amusement park attraction, comprising:
 - a loading platform having a gap separating a first portion of the loading platform from a second portion of the loading platform;
 - a ride vehicle coupled, through the gap, to a transport, wherein the transport is configured to propel the ride vehicle along a loading path of the loading platform; and
 - a magnetic zipper positioned adjacent to the loading platform and configured to transition between a first configuration and a second configuration in at least a portion of the magnetic zipper, wherein the magnetic zipper is configured to cover the gap in the first configuration and is configured to allow the ride vehicle to occupy a guest-accessible position on the loading platform in the second configuration.
2. The gap covering system of claim 1, wherein the magnetic zipper comprises a first section extending from the first portion of the loading platform and having a first plurality of magnets and a second section extending from the second portion of the loading platform and having a second plurality of magnets, wherein the first plurality of magnets is configured to magnetically couple to the second plurality of magnets in the first configuration of the magnetic zipper.
3. The gap covering system of claim 2, wherein the first section is a first inflatable section and the second section is a second inflatable section, wherein the first and second inflatable sections are configured to receive a fluid to inflate and facilitate transitioning the magnetic zipper to the first configuration.
4. The gap covering system of claim 2, wherein the first plurality of magnets comprises permanent magnets and the second plurality of magnets comprises electromagnets, wherein each of the first plurality of magnets attract respective ones of the second plurality of magnets when the second plurality of magnets is in a de-energized state,

and wherein the second plurality of magnets repels respective ones of the first plurality of magnets when the second plurality of magnets is in an energized state.

5. The gap covering system of claim 2, wherein the ride vehicle comprises an engagement feature configured to interface with the magnetic zipper, wherein the engagement feature is configured to sequentially magnetically decouple magnets of the first plurality of magnets from corresponding magnets of the second plurality of magnets as the ride vehicle travels along the loading path to transition the magnetic zipper from the first configuration to the second configuration.

6. The gap covering system of claim 5, comprising a controller communicatively coupled to the first plurality of magnets and the second plurality of magnets, wherein the controller is configured to sequentially transition the first and second plurality of magnets between respective energized states and respective de-energized states based on a ride vehicle position to facilitate transitioning the magnetic zipper between the first configuration and the second configuration, respectively.

7. The gap covering system of claim 1, wherein the magnetic zipper comprises a first plurality of biased supports coupled to a first section of the magnetic zipper extending from the first portion of the loading platform and having a first plurality of magnets and a second plurality of biased supports coupled to a second section of the magnetic zipper extending from the second portion of the loading platform and having a second plurality of magnets.

8. A gap covering system for a ride system of an amusement park, comprising:
a turntable configured to rotate about an axis;
an outer platform disposed about the turntable to form a gap between the turntable and the outer platform;
a ride vehicle coupled, through the gap, to a transport, wherein the transport is configured to propel the ride vehicle about the axis; and

a magnetic zipper having a first section extending outwardly from the turntable and a second section extending from the outer platform toward the first section, wherein the first and second sections are configured to engage at an interface to cover the gap in a first configuration of the magnetic zipper, wherein the magnetic zipper is configured to transition from the first configuration to a second configuration in a portion of the magnetic zipper that permits the ride vehicle to occupy a guest-accessible position along the turntable.

9. The gap covering system of claim 8, wherein the magnetic zipper comprises a first plurality of magnets coupled to the first section and a second plurality of magnets coupled to the second section, wherein the first and second plurality of magnets are configured to magnetically couple to one another in the first configuration of the magnetic zipper.

10. The gap covering system of claim 9, wherein the first section comprises a first inflatable section and the second section comprises a second inflatable section, wherein the first and second inflatable sections are configured to receive a fluid to inflate and facilitate magnetically coupling the first and second plurality of magnets to one another in the first configuration of the magnetic zipper.

11. The gap covering system of claim 9, wherein the first plurality of magnets comprises first electromagnets and the second plurality of magnets comprises second permanent magnets, wherein the second permanent magnets are configured to attract corresponding first electromagnets when the first electromagnets are in respective de-energized states, and wherein the first electromagnets are configured to repel corresponding second permanent magnets when the first electromagnets are in respective energized states.

12. The gap covering system of claim 8, wherein the first section comprises a first plurality of magnets and the second section comprises a second plurality of magnets,

wherein the first plurality of magnets or the second plurality of magnets comprises electromagnets that are selectively transitionable between attractive states and repelling states to permit the magnetic zipper to transition between the first configuration and the second configuration, respectively.

13. The gap covering system of claim 12, comprising a controller communicatively coupled to the electromagnets to cause the electromagnets to sequentially transition between the attractive states and the repelling states based on a ride vehicle position.

14. The gap covering system of claim 8, wherein the first and second sections of the magnetic zipper are made of polypropylene mesh, vinyl or nylon coated fabrics, rubber, plastic, polyurethane, or a combination thereof.

15. The gap covering system of claim 8, wherein the first section is coupled to one or more supports positioned beneath the turntable and the second section is coupled to one or more supports of the outer platform via length-adjustable links, springs, or both.

16. The gap covering system of claim 8, wherein the first section and the second section are coupled to one or more biased supports that are actuated to transition the magnetic zipper between the first configuration and the second configuration.

17. A method of operating a gap covering system for an amusement park attraction, comprising:

magnetically coupling a first section of a magnetic zipper to a second section of the magnetic zipper to form a surface that extends across a gap of a loading platform to cover the gap;

propelling a ride vehicle along a path adjacent to the loading platform via a transport; and

magnetically decoupling the first section from the second section along at least a portion of the magnetic zipper as the ride vehicle travels along the path to form an opening in the magnetic zipper, wherein a support structure extends through the opening to couple the ride vehicle to the transport.

18. The method of claim 17, wherein magnetically coupling the first section to the second section comprises transitioning respective electromagnets comprised in the first section to de-energized states to enable respective permanent magnets comprised in the second section to attract metallic cores of the respective electromagnets, wherein magnetically de-coupling the first section from the second section comprises transitioning the respective electromagnets comprised in the first section to energized states to repel the respective permanent magnets comprised in the second section and form the opening.

19. The method of claim 17, wherein magnetically coupling the first section to the second section comprises transitioning first electromagnets comprised in the first section and second electromagnets comprised in the second section to respective attractive states to enable the first and second electromagnets to attract one another, wherein magnetically de-coupling the first section from the second section comprises transitioning the first electromagnets comprised in the first section and the second electromagnets comprised in the second section to respective repelling states to enable the first and second electromagnets to repel one another and form the opening.

20. The method of claim 17, comprising inflating the first section and the second section of the magnetic zipper with a fluid to facilitate magnetically coupling the first section of the magnetic zipper to the second section of the magnetic zipper.