CLAIMS:

1. A system, comprising:

a plurality of grid elements;

an analytic system; and

a control system,

wherein the plurality of grid elements are installed in a dynamic driving area in an attraction and are configured to perform based on command instructions received from the control system to control the movement of a vehicle disposed on the plurality of grid elements,

the analytic system is configured to track, via one or more sensors, vehicle information comprising the vehicle's position, size, velocity, acceleration, or any combination thereof, and to send the vehicle information to the control system via a communication module, and

the control system is configured to receive the vehicle information via a communication module, to determine, via one or more processors, which of the plurality of grid elements to actuate and a corresponding manner of actuation based on a desired movement of the vehicle, and to send command instructions comprising performance data to each of the plurality of grid elements identified for actuation.

2. The system of claim 1, wherein each of the plurality of grid elements includes a corresponding movement control unit and vertical actuator, wherein the movement control unit is capable of extending through a respective hole in a surface of the dynamic driving area based on actuation of the vertical actuator.

3. The system of claim 1, wherein each of the plurality of grid elements includes a corresponding movement control unit at least partially extending or configured to extend through a respective hole in a surface of the dynamic driving area and a rotation configuration unit, wherein each of the plurality of grid elements includes a portion of the surface through which the movement control unit extends or is configured to extend,

wherein the portion of the surface is configured to rotate in a planar direction with the movement control unit and the rotation configuration unit is configured to rotate the movement control unit about an axis substantially transverse with respect to the planar direction.

4. The system of claim 1, wherein one or more of the plurality of grid elements includes a corresponding movement control unit with an upper portion extending through a surface of the dynamic driving area and aligned with an upper portion of the surface.

5. The system of claim 1, wherein the plurality of grid elements each include a respective movement control unit, rotation configuration unit configured to rotate the movement control unit at an angular speed, and a direction configuration unit configured to turn the movement control unit into alignment with a planar direction.

6. The system of claim 1, comprising additional grid elements, wherein the control system is configured to control each of the plurality of grid elements independently and the control system is configured to control the additional grid elements together as a set.

7. The system of claim 1, comprising the vehicle including a motor and one or more vehicle wheels including at least one vehicle drive wheel configured to motivate the vehicle, wherein the plurality of grid elements include movement control units that comprise grid element wheels driven by respective motors of the grid elements and configured to engage with the one or more vehicle wheels to control movement of the vehicle.

8. The system of claim 1, comprising a plurality of vehicles disposed on the driving area.

9. The system of claim 1, comprising the vehicle including a reaction plate and the plurality of grid elements each including a linear coil.

10. The system of claim 1, comprising the vehicle including a position tracking system and a communication module, wherein the position tracking system includes one or more sensors configured to track the vehicle's position in the dynamic driving area and the communication module is configured to communicate the vehicle's position to the control system's communication module.

11. The system of claim 1, wherein each grid element comprises a movement control unit including a grid element wheel driven by a motor, wherein the grid element wheel is configured to engage a vehicle and control the vehicle's rotational speed, rotational direction, and angular direction, thereby causing the vehicle to perform a desired maneuver.

12. The system of claim 1, comprising the dynamic driving area including dynamic portions where grid elements are installed to control the movement of the vehicle and non-dynamic portions where grid elements are not installed and the vehicle controls its own movement.

13. The system of claim 1, wherein the performance data comprises an angular speed at which a rotation configuration unit of the grid elements rotates a movement control unit of the grid elements, a direction in which the rotation configuration unit rotates the movement control unit, a planar position angle that a direction configuration unit of the grid elements positions the movement control unit in, a time to actuation, or some combination thereof.

14. A system, comprising:

a plurality of grid elements;

an analytic system; and

a control system,

wherein the plurality of grid elements are configured to control the movement of a self-propelled vehicle when engaged with the vehicle and are dispersed in a stage of a dynamic driving area of an amusement attraction, the analytic system is configured to monitor information of the vehicle including an angular velocity and planar direction of a driven wheel of the vehicle and send the information to the control system, the control system is configured to send command instructions to the grid elements to rotate a movement control unit of the grid element based on the planar direction and the angular velocity of the driven wheel at a determined actuation time.

15. The system of claim 14, wherein the analytic system is configured to monitor a plurality of driven wheels of the vehicle and the control system accounts for the plurality of driven wheels before sending the command instructions to the grid elements.

16. The system of claim 14, wherein the stage of the dynamic driving area is configured to rotate in a planar direction at least when the vehicle is located on the stage and the driven wheel is in contact with one or more of the plurality of grid elements.

17. The system of claim 14, wherein the plurality of grid elements are configured to control the movement of the vehicle by one or more movement control units engaging the driven wheel of the vehicle and counteracting the spin of the driven wheel.

18. A method, comprising:

tracking, via an analytic system, vehicle information for one or more vehicles, wherein the one or more vehicles are driving on or approaching a dynamic driving area of an attraction;

sending, via the analytic system, the vehicle information to a control system utilizing a communication module of the analytic system and a communication module of the control system that are communicably coupled;

determining, via the control system, which of a plurality of grid elements installed in the surface of the dynamic driving area to actuate and a manner of actuation based on the vehicle information received by the control system from the analytic system and a desired movement for the one or more vehicles;

sending, via the control system, command instructions comprising performance information to each of the plurality of grid elements identified for actuation utilizing the communication module of the control system and a communication module of the selected grid elements; and

executing the command instructions via movement control units of the plurality of grid elements identified for actuation.

19. The method of claim 18, wherein each of the plurality of grid elements includes a processor configured to execute the command instructions received from the control system.

20. The method of claim 18, wherein the performance information comprises a time to vertically actuate the movement control unit for a vertical actuator of each of the plurality of grid elements, a planar direction in which to position the movement control unit for a direction configuration unit of each of the plurality of grid elements, a direction in which to rotate the movement control unit for a rotation configuration unit of each of the plurality of grid elements, a speed at which to rotate the movement control unit for the rotation configuration unit, or some combination thereof.

21. The method of claim 18, wherein the movement control units of the plurality of grid elements control the movement of the one or more vehicles according to the performance instructions by engaging one or more of the vehicles' wheels as the one or more vehicles traverse over the respective movement control unit actuating on the dynamic driving area.