

SYSTEMS AND METHODS FOR BRAKING OR LAUNCHING A RIDE VEHICLE

Abstract

Systems and methods for braking or launching a ride vehicle (14) are disclosed. In one embodiment, a system includes a linear induction motor (LIM) (82, 92) installed in a curved portion (16) of a track, a ride vehicle (14) disposed upon the track, one or more reaction plates (10) coupled to a side of the ride vehicle (14) facing the track via a plurality of actuators (12), one or more sensors (46) configured to monitor an air gap (19) between the one or more reaction plates (10) and the LIM (82, 92), and a processor (44) configured to determine which of the plurality of actuators (12) to actuate and a desired performance of each of the plurality of actuators (12) based on data received from the one or more sensors (46) to maintain the air gap (19) at a desired level throughout traversal of the curve (16) by the ride vehicle (14).

[Figure 1]