CLAIMS:

1. 1. A reaction-controlled system, comprising:

a track;

a trolley configured to travel along the track;

an animated figure coupled to the trolley;

at least one reaction control element coupled to a portion of the animated figure; and

and

a controller communicatively coupled to the trolley and the animated figure, wherein the controller is configured to:

detect a presence of a ride vehicle or a guest proximate to the track based on sensor data received by the controller from one or more sensors proximate to the track;

control the trolley to position the animated figure based on the presence of the ride vehicle or the guest; and

control animation of the animated figure by operating the reaction control element.

2. 2. The reaction-controlled system of claim 1, wherein the controller is configured to control the animation of the animated figure by moving the trolley in conjunction with operating the reaction control element to rotate the animated figure, lean the animated figure, move the animated figure in one or more dimensions within a linear axes system comprised of an x-axis, a y-axis, and a z-axis which are all perpendicular to each other, or any combination thereof.

3. 3. The reaction-controlled system of claim 1, wherein the track comprises a plurality of rails and the trolley is coupled to the animated figure via a cable.

4. 4. The reaction-controlled system of claim 3, wherein the trolley is configured to extend and retract the cable from the trolley to change a distance between the trolley and the animated figure.

5. 5. The reaction-controlled system of claim 4, wherein the trolley is configured to extend and retract the cable using a counterweight, a custom tensioning system, a winch, or any combination thereof.

~~6.~~ 6. The reaction-controlled system of ~~claim~~ claim 1, wherein the track comprises a plurality of track portions arranged to facilitate movement of the trolley along two or more axes.

~~7.~~ 7. The reaction-controlled system of ~~claim~~ claim 1, wherein the controller is configured to determine that the ride vehicle or the guest is within a threshold distance from the animated figure based on the sensor data received by the controller from the one or more sensors proximate to the animated figure.

~~8.~~ 8. The reaction-controlled system of ~~claim~~ claim 7, wherein the one or more sensors comprise a radio frequency integrated device (RFID) tag, a camera, a weight sensor, an electronic reader configured to read the RFID tag, or any combination thereof.

~~9.~~ 9. The reaction-controlled system of ~~claim~~ claim 1, wherein the at least one reaction control element comprises a plurality of propellers coupled to respective portions of the animated figure, wherein the respective portions are configured to move relative to one another.

~~10.~~ 10. The reaction-controlled system of ~~claim~~ claim 9, wherein the controller is configured to manage the plurality of propellers based on an animation determined based on a detected location of the ride vehicle or the guest.

~~11.~~ 11. The reaction-controlled system of ~~claim~~ claim 10, wherein the animation comprises moving one or more extremities of the animated figure using the plurality of propellers.

~~12.~~ 12. A method for moving an animated figure, the method comprising:

determining a presence of a ride vehicle or a guest proximate to a path based on sensor data received from one or more sensors proximate to the path;

determining a desired location for the animated figure based on the presence of the ride vehicle or the guest, wherein the animated ~~figured~~figure is coupled to a trolley configured to travel along the path;

moving the trolley along ~~a~~the path based on the desired location;

determining an animation for the animated figure;

determining one or more components of the animated figure to move relative to other components of the animated figure based on the animation; and

maneuvering the one or more components of the animated figure relative to the other components of the animated figure by controlling one or more reaction--controlled elements coupled with, disposed on, or integrated with the one or more components of the animated figure.

~~13.~~ 13. The method of~~-~~ claim 12, wherein the one or more components comprise one or more limbs of the animated figure that couple to a body of the animated figure via hinges.

~~14.~~ 14. The method of~~-~~ claim 12, wherein the one or more reaction-controlled elements comprise a propeller, an unmanned aerial vehicle, an electric ducted fan, a pneumatic device, a gyroscope device, or any combination thereof.

~~15.~~ 15. The method of~~-~~ claim 12, comprising moving the trolley horizontally or vertically along the path to provide corresponding movement of the animated figure.

~~16.~~ 16. The method of~~-~~ claim 12, comprising actuating a winch on the trolley to facilitate vertical movement of the animated figure relative to the trolley.

~~17.~~ 17. The method of~~-~~ claim 12, wherein the one or more reaction-controlled elements comprise a plurality of propellers, and the method comprising coordinating operation of the plurality of propellers to provide the animation.

~~18.~~ 18. The method of~~-~~ claim 17, comprising moving the trolley along the path by activating the one or more reaction-controlled elements.

~~19.~~ 19. A tangible, non-transitory, machine readable medium, comprising machine-readable instructions that, when executed by one or more processors, cause the one or more processors to:

detect a presence of a guest or a ride vehicle proximate to a path based on sensor data received from one or more sensors proximate to the path;

position a trolley along ~~a~~the path based on the detected presence, wherein the trolley is coupled to an animated figure, and wherein the trolley is configured to travel along the path;

determine at least one component of the animated figure to control based on an animation; and

in response to determining the at least one component, operating the trolley and at least one reaction-controlled element associated with the at least one component to provide the animation, wherein the at least one reaction-controlled element is onboard the animated figure, connected to the animated figure via a rod, or a combination thereof.

~~20.~~ 20. The tangible, non-transitory, machine readable medium of claim 19, comprising machine-readable instructions that, when executed by one or more processors, cause the one or more processors to control rotation of propellers, wherein the propellers are the at least one reaction-controlled element.