

CLAIMS:

1. A robotic system comprising a multi-sectional show robot, wherein the multi-sectional show robot comprises:

a primary robot comprising a controller and one or more sensors, wherein the one or more sensors are configured to acquire feedback indicative of an environment surrounding the primary robot; and

a secondary robot configured to removably couple to the primary robot to transition the multi-sectional show robot between a disengaged configuration, in which the primary robot is decoupled from the secondary robot, and an engaged configuration, in which the primary robot is coupled to the secondary robot, wherein the controller is configured to operate the primary robot based on the feedback and a first control scheme with the multi-sectional show robot in the disengaged configuration and to operate the primary robot based on a second control scheme with the multi-sectional show robot in the engaged configuration.

2. The robotic system of claim 1, wherein the secondary robot comprises an additional controller and one or more additional sensors, wherein the one or more additional sensors are configured to acquire additional feedback indicative of an environment surrounding the secondary robot.

3. The robotic system of claim 2, wherein the controller is configured to operate the primary robot based on the second control scheme and the feedback, the additional feedback, or both, when the multi-sectional show robot is in the engaged configuration.

4. The robotic system of claim 2, wherein the additional controller is configured to: operate the secondary robot based on the additional feedback and a third control scheme when the multi-sectional show robot is in the disengaged configuration; and

operate the secondary robot based on the second control scheme and the feedback, the additional feedback, or both, when the multi-sectional show robot is in the engaged configuration.

5. The robotic system of claim 1, wherein the primary robot, the secondary robot, or each comprise an interaction system having an audio output device, a visual output device, a gesture output device, or a combination thereof.

6. The robotic system of claim 1, wherein the first control scheme and the second control scheme define movement specifications of a propulsion system of the primary robot.

7. The robotic system of claim 6, wherein the movement specifications comprise a drive speed, a step speed, and/or a step height of the propulsion system.

8. The robotic system of claim 1, comprising a system controller and a machine vision system communicatively coupled to the system controller, wherein the machine vision system is configured to acquire image data of the primary robot, the secondary robot, or both, and wherein the system controller is configured to monitor a relative position of the primary robot, the secondary robot, or both, based on the image data.

9. The robotic system of claim 1, wherein the primary robot comprises a ride vehicle of an attraction.

10. The robotic system of claim 1, wherein, in the engaged configuration of the multi-sectional show robot, the primary robot and the secondary robot are coupled via a tether.

11. The robotic system of claim 1, wherein the secondary robot is one of a plurality of secondary robots configured to couple to the primary robot in the engaged configuration of the multi-sectional show robot.
12. A method for operating a multi-sectional show robot, comprising:
generating feedback indicative of an environment surrounding a primary robot of the multi-sectional show robot via one or more sensors of the primary robot;
determining, via a controller of the primary robot, that the multi-sectional show robot is in a disengaged configuration in which the primary robot is decoupled from a secondary robot of the multi-sectional show robot;
operating, via the controller, the primary robot based on the feedback and a first control scheme in response to determining that the multi-sectional show robot is in the disengaged configuration;
determining, via the controller of the primary robot, that the multi-sectional show robot is in an engaged configuration in which the primary robot is coupled to the secondary robot of the multi-sectional show robot; and
operating, via the controller, the primary robot based on the feedback and a second control scheme in response to determining that the multi-sectional show robot is in the engaged configuration.
13. The method of claim 12, comprising:
determining, via the controller of the primary robot, that the multi-sectional show robot is in the disengaged configuration based on the feedback;
generating additional feedback indicative of an additional environment surrounding the secondary robot via one or more additional sensors of the secondary robot; and
operating, via an additional controller of the secondary robot, the secondary robot based on the additional feedback and a third control scheme in response to determining that the multi-sectional show robot is in the disengaged configuration.

14. The method of claim 12, comprising:
generating additional feedback indicative of an additional environment surrounding the secondary robot via one or more additional sensors of the secondary robot; and
operating, via an additional controller of the secondary robot, the secondary robot based on the additional feedback and the second control scheme in response to determining that the multi-sectional show robot is in the engaged configuration.
15. The method of claim 14, comprising:
in response to determining that the multi-sectional show robot is in the engaged configuration:
operating, via the controller, the primary robot based on the feedback, the additional feedback, and the second control scheme; or
operating, via the additional controller, the secondary robot based on the feedback, the additional feedback, and the second control scheme; or both.
16. The method of claim 12, comprising:
executing a loading procedure to couple the secondary robot to the primary robot;
transporting the secondary robot from an initial location to a target location via the primary robot; and
decoupling the secondary robot from the primary robot at the target location to deposit the secondary robot at the target location.
17. The method of claim 16, comprising:
monitoring a health status of the secondary robot while the secondary robot is detached from the primary robot; and
initiating a retrieval operation to transport the secondary robot from the target location to another target location via the primary robot in response to determining that the health status falls below a threshold value.

18. A multi-sectional show robot, comprising:
- a primary robot comprising one or more sensors configured to acquire feedback indicative of a first environment surrounding the primary robot;
 - a secondary robot comprising one or more additional sensors configured to acquire additional feedback indicative of a second environment surrounding the secondary robot; and
 - a computing system comprising a first controller of the primary robot, a second controller of the secondary robot, or both, wherein the computing system is configured to:
 - receive an indication that the primary robot is coupled to the secondary robot; and
 - in response to receiving the indication, operate the primary robot and the secondary robot based on a combined character control scheme and based on the feedback, the additional feedback, or both.
19. The multi-sectional show robot of claim 18, wherein the computing system is configured to:
- monitor, based on the feedback, the additional feedback, or both, an interaction area surrounding the multi-sectional show robot to identify an occurrence of a guest interaction with the multi-sectional show robot; and
 - in response to determining the occurrence of the guest interaction, transition the primary robot to a hibernating state to deactivate one or more components of the primary robot.
20. The multi-sectional show robot of claim 19, wherein, in response to determining the occurrence of the guest interaction, the computing system is configured to engage one or more mechanical interlocking features of the multi-sectional show robot to physically block movement of at least one of the one or more components while the primary robot is in the hibernating state.