

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

## Lunch Is Served! Post-Quiz **Answer Key**

1. Describe in words how you think the AGV in the video followed the floor and how you programmed your robot to follow the reflective tape.

*Example answer:* The AGV in the video probably followed sensors buried in the floor. Our robot continuously read values obtained from the two IR sensors (left side and right side) and when a left or right sensor value indicated the robot was past the edge of the reflective tape, the appropriate motor was shut off to steer the robot back on track.

2. Describe how you got your robot to stop at a specific spot.

*Example answer:* We used a piece of non-reflective tape (black electrical tape) to cover a spot on the reflective tape. When the robot passed this spot, both the values from the IR sensor indicated to stop both motors.

3. When you tested your robot on the final course setup, was your robot able to turn left and right and did it stop at the intended delivery location? Explain.

*Example answer:* Our robot was successful at completing the course, making left and right turns, and it was able to stop at the correct spot on the course route.

4. Reflect upon your observations of your robot and all the other robots as they completed the course. Describe what features made robots successful.

*Example answer:* Robots with sensors that were carefully placed at the center of the robots within a half-inch of the reflective tape were successful. Robots that had all of their components well-fastened were successful. Robots that had matched wheel speed when moving straight forward were successful.