 THE CHALLENGES

|  | TEAM: | POINTS |
| :---: | :---: | :---: |
| 1. | MAKE IT MOVE: <br> Make your robot move forward for 2 seconds and stop. (10 points) |  |
| $2$ | GO THE DISTANCE: <br> Move forward 15 feet in a straight line and stop. (20 points) |  |
| 3. | THERE AND BACK AGAIN: <br> Move straight forward 15 feet, reverse direction, and stop where you started. (30 points) |  |
| $4$ | YOU'RE SO SQUARE: <br> Make your robot travel in a complete square, stopping where you started. The sides of the square you make must be at least 1 foot long. (100 points) |  |
| $5$ | MOVING ON UP: <br> Design a robot that can climb over a hill, then stop at the "finish line." (100 points) |  |
| $6$ | BOUNCING OFF THE WALLS: <br> Design a robot that when it bumps into a wall, it backs up, turns, and travels in a different direction. (Hint: you will need a touch sensor with a bumper to complete this challenge.) <br> (Up to 500 points possible - 100 points for each bounce) |  |
| 7. | ON THE RIGHT TRACK: <br> Design a robot that can follow a line on the floor. (Hint: you will need a light sensor to complete this challenge.) <br> (500 points for completing the circuit - deduct 100 for each time the line is abandoned) |  |
| $8$ | SCARED OF HEIGHTS: <br> Design a robot that can move back and forth across a table without ever falling off. <br> (Up to 500 points possible - 100 points for each time an edge is avoided) |  |
| $9$ | CAN IT: <br> A circle measuring approximately 2 meters in diameter will be outlined on the floor using black tape. Pop cans will be placed inside the circle. Your robot must start outside of the circle and will have a total of 2 minutes to get as many cans outside of the circle as possible. The can must be on the outside of the line when it stops moving. <br> (Up to 1,000 points - 100 points for each can) |  |

