



ROBOTICS CHALLENGE

Challenge Description

“Landfill”

Design a robot that goes up a ramp and deposits randomly-placed junk (assortment of Lego pieces) into a “landfill” hole.

Specifications

- Robot must be made with Lego Mindstorms Robotics Invention System and be programmed with Robolab programming environments.
- Robots can consist of a maximum of 1 RCX, 8 wires, and 3 motors.
- Nothing can be added or removed from the robot during round.
- No non-Lego parts are allowed.
- Challenge is maximum 3 minutes long and starts at the green line.
- Challenge starts behind the green line at the bottom of the ramp.
- Maximum robot dimensions: 7” x 7” (excluding parts that may unfold out larger later.)



Adaptations

- Count the number of times “junk” is dumped into the hole.
- Beep every time “junk” is dumped into the hole.

Scoring

- 100 point challenge if all junk is removed in maximum of 3 minutes.
- 10 points for each adaptation above
- - 5 points each time robot must be handled
- - 10 points each time robot falls off the playing area
- - 10 points each load of junk dumped off the playing area into the village.
- Up to 10 points will be deducted from the total score for the total amount of damage sustained by the robot, as determined by the judge.

Hints and Tips