



ROBOTICS CHALLENGE

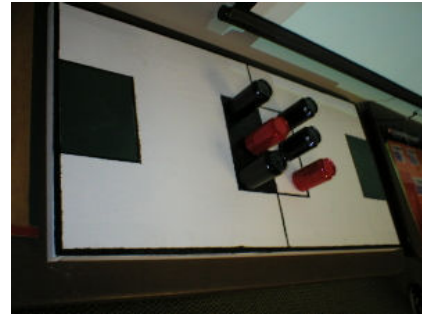
Challenge Description

“Tug-o-War”

Test your engineering skills: develop a robot that will complete a tug-o-war contest with another team.

Specifications

- Size limit: robot must fit inside the square, white box that comes with the kits.
- The designers are responsible for providing a sturdy post on which to fasten the tether. The post may be placed anywhere on the robot, but front is preferred.
- Challenge starts with two robots equidistant from the center line on the Woots and Snarks playing field. The tether must be short enough such that pulling a robot over the line does not result in the winning robot going off the field of play.
- Robots must be made with LEGO Mindstorms Robotics Invention System and be programmed with Robolab programming environments.
- Robots can consist of a maximum 1 RCX, 8 Wires, and 3 motors.
- Nothing can be added or removed from the robot during a round.
- No non-lego parts are allowed
- Challenge is maximum 1 minute long
- **Teams are limited to TWO matches per course.**



Scoring

- 100 point challenge for successfully pulling the opponent over *completely over the line*.
- Robots sustaining damage are disqualified.
- Losing robot gets 50 points.
- Robots that interfere with the opponent in any way, including malicious code transmission, are disqualified.
- Robots which diverge from a straight, backwards pull are disqualified.
- The robot may not be handled during the trial.
- Up to 5 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

- Use gears to increase the power of your motors.
- Use a light sensor to rev up the power if your robot starts going over the line.