

Programming Challenge

Sumo Bot

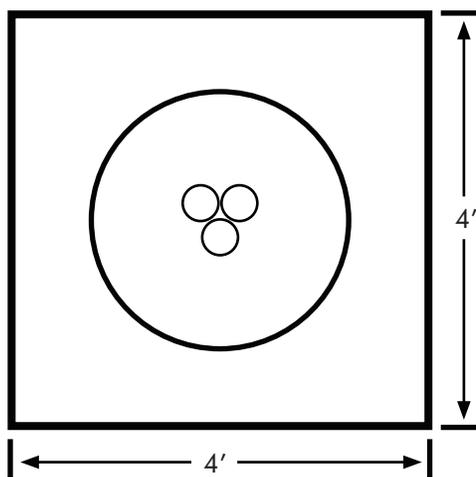
Rotational Torque vs. Power Level Investigation Description

In this investigation you will determine if there is a proportional relationship between the robot's motor power level and its ability to push loads out of a ring. Program your robot to move at $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ and full power levels and record the maximum number of cans it is able to move out of the ring.

Materials Needed

- Black electrical tape
- Scissors (or cutting tool)
- 20 Soda cans (or something similar)

Board Specifications



Note: Diagrams are not drawn to scale

Chart

Power Level	Number of Cans
127	
96	
63	
31	

Is there a proportional relationship between power level and the number of cans that the robot can push out of the ring? Please describe your findings.