

## Proportional Control - RCX

Suggested Time

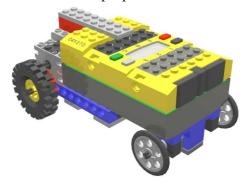
60 minutes

Age

11 - 18

Challenge

Program a car equipped with a rotation sensor to return to its original place no matter how far it is rolled away from the origin. Attain this goal by using both on-off control and proportional control.



**Topics** 

On-Off Control and Proportional Control

Subjects

Math, Science & Engineering

Programming Themes

Forks and Containers

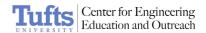
**Materials** 

- RCX
- Rotation Sensor
- Assortment of LEGO Pieces

**Building Instructions** 

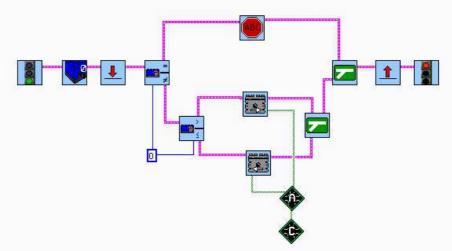
1. Build an RCX car equipped with two motors and a rotation sensor.





## Programming Instructions

1. In ROBOLAB Inventor 4, program a car to act as an on-off controller (like a thermostat).



2. In ROBOLAB Inventor 4, program a car to act as a proportional controller. Your intensity or speed is proportional to the error.

