# Data Hubs: Robot Throttle Challenge

### **Robot Throttle Challenge**

In this challenge, you must program a "throttle" to allow smooth control of the robot's speed.

#### Things You Need to Design:

- Robot throttle made from an NXT Smart Motor (similar to sample design shown below)
- HINT: Use the Rotation Sensor built into the motor to detect how far the handle has moved...

## **Playing Field Setup**

No game board is needed for this challenge.

#### **Rules and Procedure**

- 1. Start with the throttle handle all the way "back" (touching the motor casing)
- 2. Start the program
- 3. Push the throttle forward slowly to demonstrate that the robot is speeding up smoothly
- 4. Pull the throttle backward slowly to demonstrate that the robot slows back down
- 5. Beat the challenge by demonstrating a properly working throttle device!

