# **Robot Sensor Exploration**

Sensors are used in everyday objects such as touch-sensitive elevator buttons and lamps which dim or brighten by touching the base. There are innumerable applications for sensors. You might even have a favorite toy that senses motion or sound. In this activity we explore the sensors in a robot and its applications.

## Helper's Guide

#### **How to Prepare**

Establish a Bluetooth connection with the robot before the beginning of the activity. Wireless communication is not reliable and potential problems are computer-specific. Make sure you always establish communication using the robot (not computer) and reply to all the Windows prompts. If software does not work, reboot computer and start over. Give adequate time for the students to explore the different sensors in the robot. Once the data is collected you can open the file using Microsoft Excel software or even a Notepad.

### **Need to Emphasize**

- Robot using in this activity has a computer inside that relies on the relationship between sensor inputs and motor outputs.
- With remote control option, explorer plays the role of such computer.
- You can steer the robot using sensor feedback and/or clock.

#### **Related Links**

- http://en.wikipedia.org/wiki/Sensor
- http://mindstorms.lego.com/eng/Overview/default.aspx

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Activity 30