

## 4 The Dog

### Description

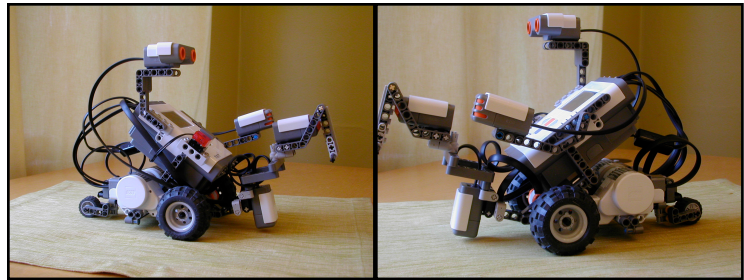
Robot follows a black line on the ground, pausing and continuing upon loud sounds that it hears, and stopping if it makes contact with anything. It also plays a sound file when anything comes too close to it on the path it is following.

### Learning Goals

<i>Control:</i>	parallel tasks
<i>Input:</i>	sound sensor distance sensor
<i>Output:</i>	following avoidance sound files
<i>Interaction:</i>	containers calculations

### Configuration

<i>Port 1:</i>	touch sensor
<i>Port 2:</i>	light sensor
<i>Port 3:</i>	sound sensor
<i>Port 4:</i>	distance sensor
<i>Port A:</i>	motor
<i>Port B:</i>	lamp
<i>Port C:</i>	motor



### Variations

- A** Follow a trail on the ground and stop on contact
- B** Alternate version of **A** with parallel tasks
- C** Listen for master's commands, pausing & continuing
- D** "Bark" when anything is too close

### Challenges

- Improve on the technique for following the trail
- Pause trail tracking while barking
- Record and use original sound file
- Continue around objects blocking the trail