Using a light sensor

Another type of sensor that can provide input to the RCX brick is a light sensor. Light readings from this sensor have a value in the range 0 to100, with 100 being the brightest. Here are the ROBOLAB symbols for use with a light sensor:

Wait for the light sensor to detect a light reading above a particular level (55 by default)

Wait for the light sensor to detect a light reading below a particular level (55 by default)

Wait for the reading to get brighter by 5%.

Wait for the reading to get darker by 5%.

Include a light sensor in your model and program it so that the motor does not turn on until the light sensor detects a light level that is above a certain value and turns off when the light level falls below that value – you can use the default value of 55 if you wish. Include a loop in your program so that the motor continuously starts and stops as the light level changes.

To indicate a different value from the default of 55 or 5%, a *modifier* must be linked to the light sensor symbol. The modifiers can be found under this symbol in the Functions window. Select the blue-outlined box with the value *123* in it. The required light value can be typed once the symbol has been placed. The cotton reel attaches it to the sensor symbol with a blue line rather than a pink line.

Experiment with different values in your program to see what difference it makes. Try placing your model in areas of the room with different light levels, for instance near a window or under a table.

Think about how a light sensor might be attached to a LEGO vehicle and used to simulate a creature that eithe r likes light places or dark places.