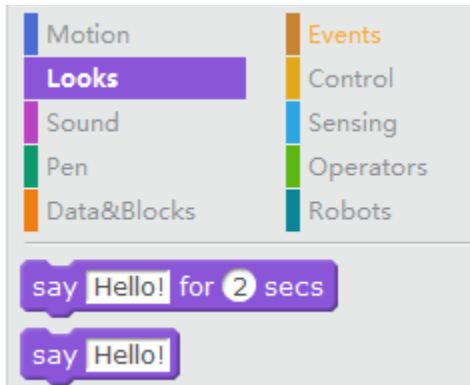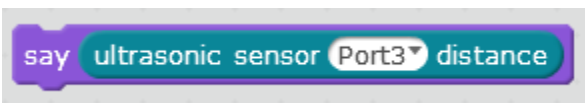# Reading Sensors

This tutorial teaches how to read values from sensors in the mBlock IDE. There are also tutorials which specifically focus on how to use the Makeblock sensors, for example the light sensor, the ultrasonic sensor and the line follower sensor.
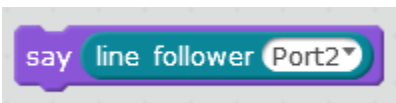
The easiest way to find out what value a sensor is giving is to have a Sprite (panda by default) "say" it. In the "Looks" Scripts, there is a "say" block:

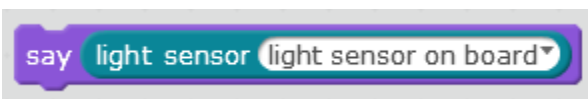| Motion	Events
Looks	Control
Sound	Sensing
Pen	Operators
Data&Blocks	Robots

say Hello! for 2 secs

say Hello!

Of course, if we ask the panda to say "Hello!", the panda is going to say "Hello!". Fortunately, we can replace this text with the name of whatever sensor we wish to read. This is for the ultrasonic sensor:

say ultrasonic sensor Port3 distance

The line follower sensor:

say line follower Port2
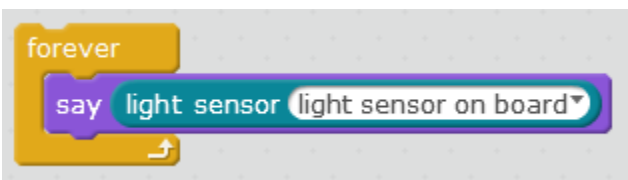
And the on-board light sensor:

say light sensor light sensor on board

For the plug-in sensors, you have to make sure the port selected is the same port as the port you have plugged your sensor into.

Now, you can click this block and it will tell you the value of the sensor. To make it continually update, you can put this block in a forever loop:

forever
    say light sensor light sensor on board

Challenge:

1. Can you find a way to display the values of different sensors at the same time?
2. Can you find out the range of possible values for all the sensors?