

Name:

Student Number:

Date:

Lesson 3 All About Lights

Activity Sheet

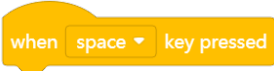
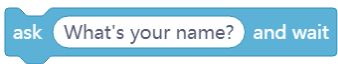
Context

Congratulations! You have developed a simple but “smart” chatbot in the previous lesson. Meanwhile, you also gain a more practical understanding of the I/O System of a robot, as well as the common input devices.

Lesson 3 will first help you review the coding blocks associated with input devices and then introduce Events blocks, which have a special “hat” (shaped with the rounded top). mBot will join in your learning activity as well, you will explore the input and output devices related to lights.

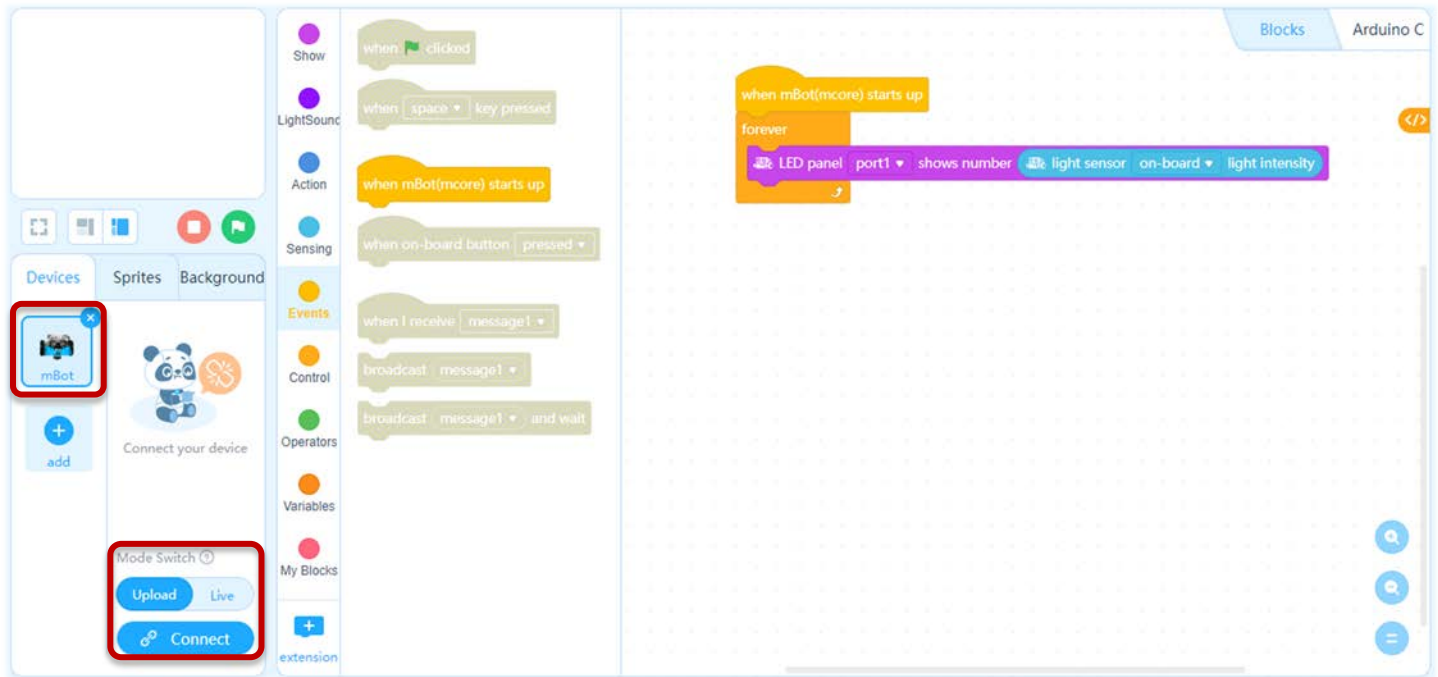
Task 3-1 The Inputs You Know

What are the inputs for using these blocks? Circle the right answer in the table below.

Coding Block	Input from Keyboard	Input from Mouse
 		
 		
		
		
		
		
		
		

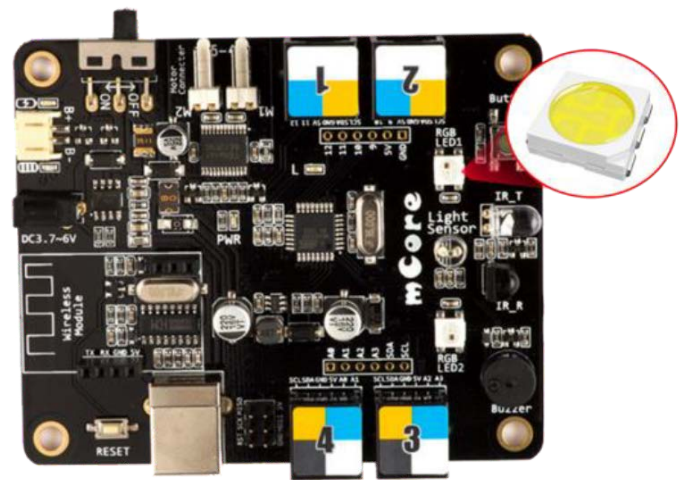
Tip: You can find the above blocks in mBlock, run and test to see their triggering devices.

Task 3-2 Upload a Program into mBot



- Tips:** (1) Remember to select and add the “mBot” device in the Stage Area.
 (2) In the information box, choose the “Upload” mode.
 (3) Connect your mBot to the computer and then click on the “Connect” button.

Record the data of the brightness displayed in the LED panel in the space below:



Task 3-3 Light up mBot

There are two LED bulbs on mBot's main control board (mCore). Unlike a light sensor, an LED does not detect or respond to any environmental properties. The LED could light up in a specific color you choose to program.

Key Concepts from this Learning Activity

Terms	What it means
Output	Any data or display that is the result executed by a program.
LED*	Stands for Light Emitting Diode and is a type of light.
Sensor*	A device sensitive to light, temperature, sound, or other conditions that let mBot “understand” the surrounding around it.

* New term