Rocker control light

1. Learning objectives

In this course, we mainly learn how to use MakeCode graphical programming to change the color of the joystick RGB light.

2. Building blocks

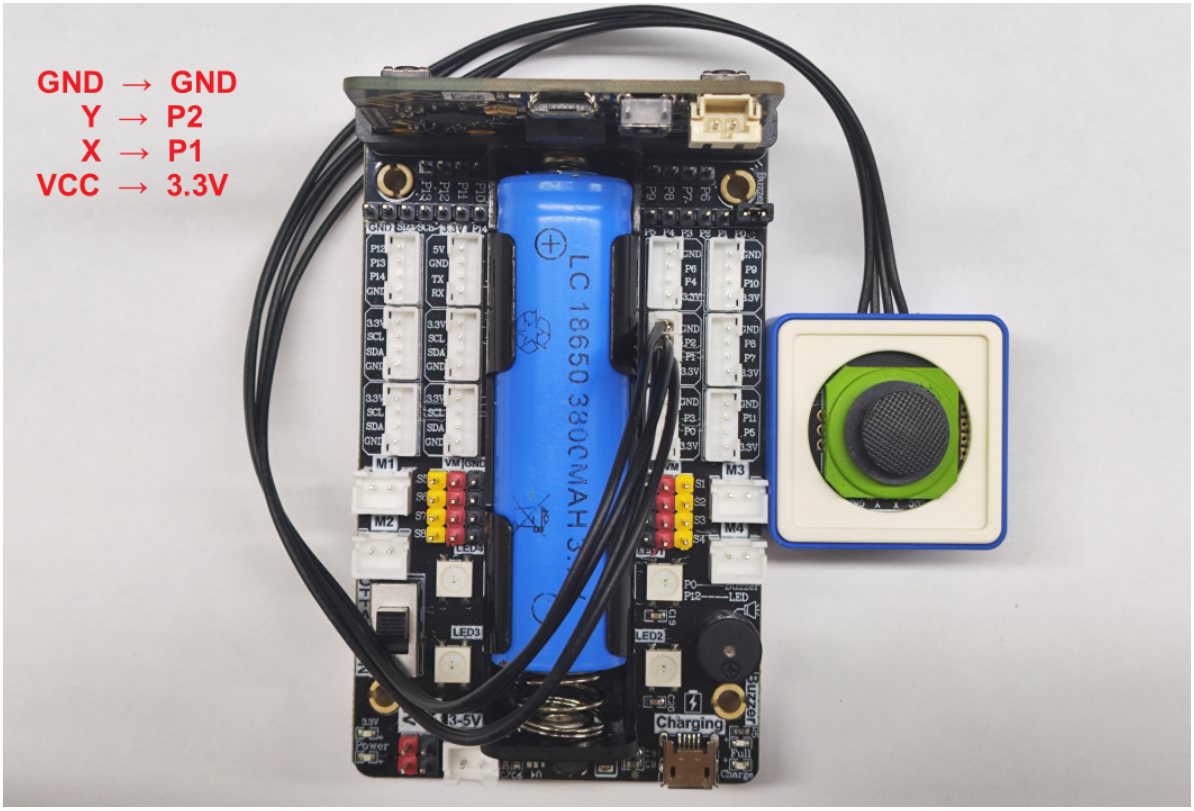
For the building blocks steps, please refer to the installation drawings of [Assembly Course]-[Rokcer color changing light] or the building blocks installation brochure.

3. Sensor wiring

The building blocks servo wiring is inserted into the Super:bit expansion board S1 interface, and the servo orange wiring is inserted into the yellow pin of S1.

The color recognition module is connected to the I2C (SDA, SCL) interface.

The joystick module is connected to the P1P2 interface.



4. Programming

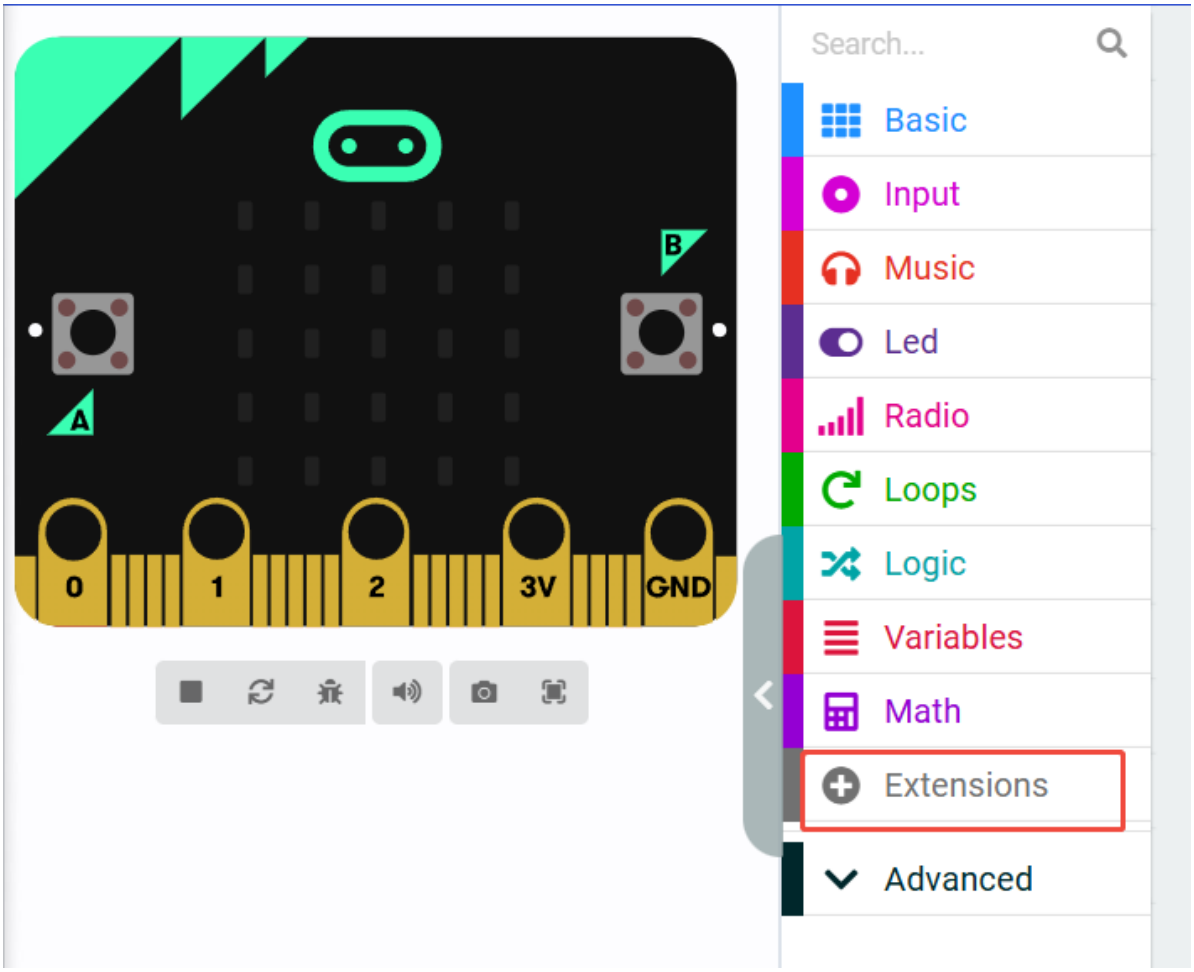
Method 1 Online Programming:

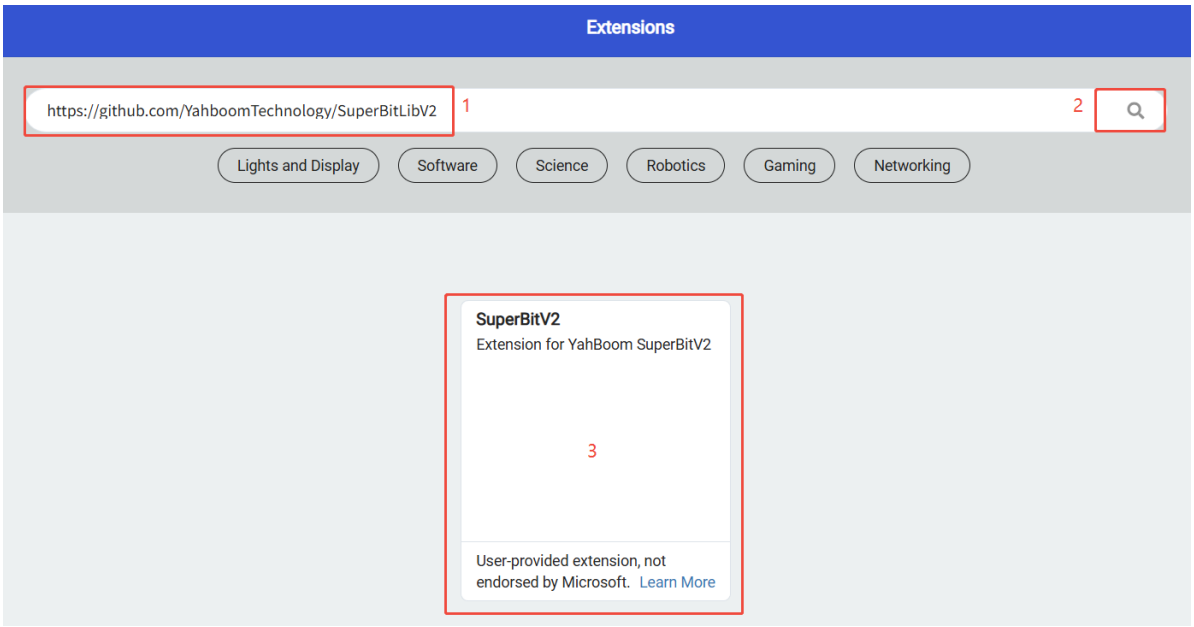
First, connect micro:bit to the computer via a USB data cable. The computer will pop up a U disk. Click the URL in the U disk: https://makecode.microbit.org/ to enter the programming interface. Then, add the Yahboom software package **https://github.com/YahboomTechnology/SuperBitLibV2** to start programming.

Method 2 Offline Programming:

Open the offline programming software MakeCode and enter the programming interface. Click [New] and add the Yahboom software package **https://github.com/YahboomTechnology/SuperBitLibV2** to start programming.

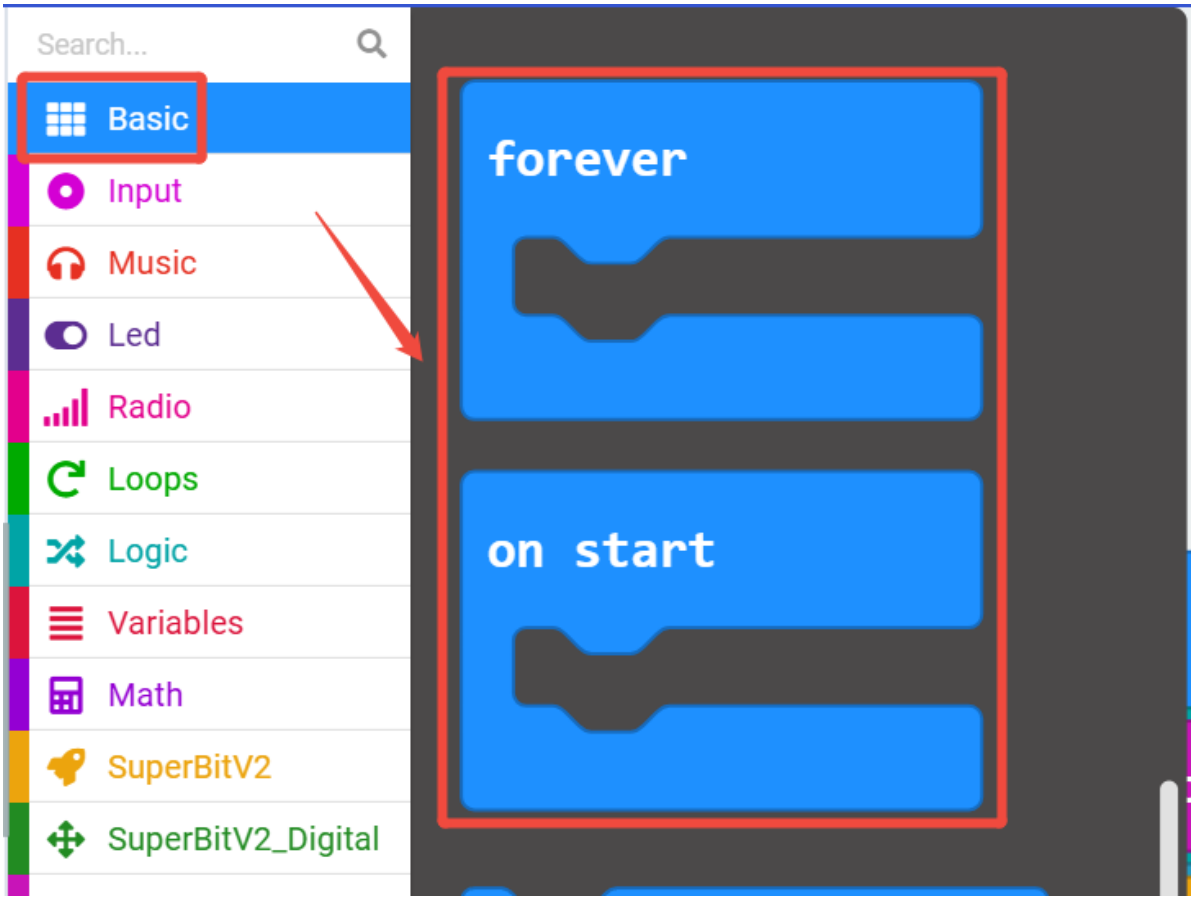
4.1 Adding extension packs

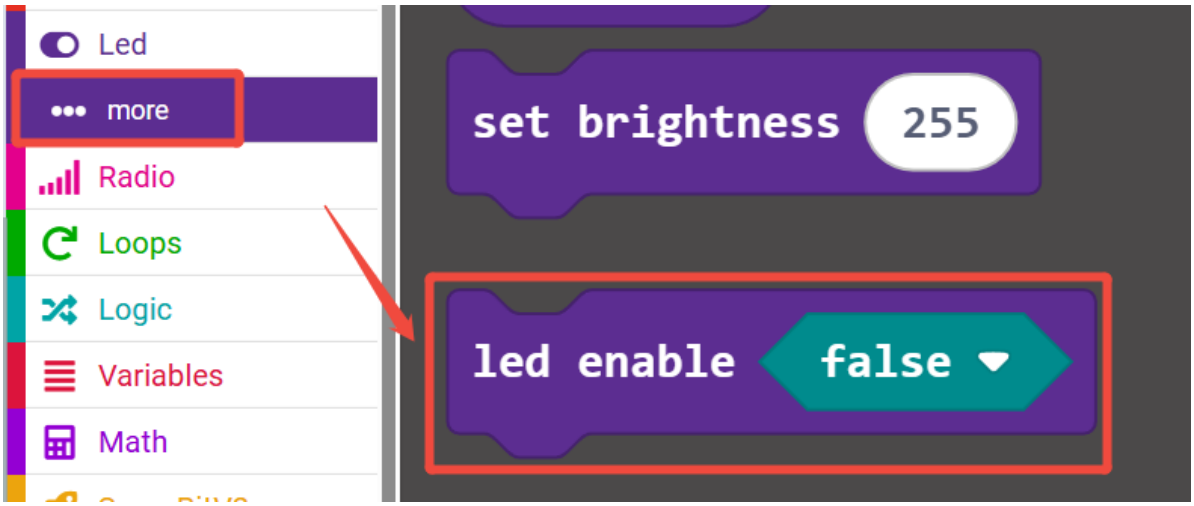




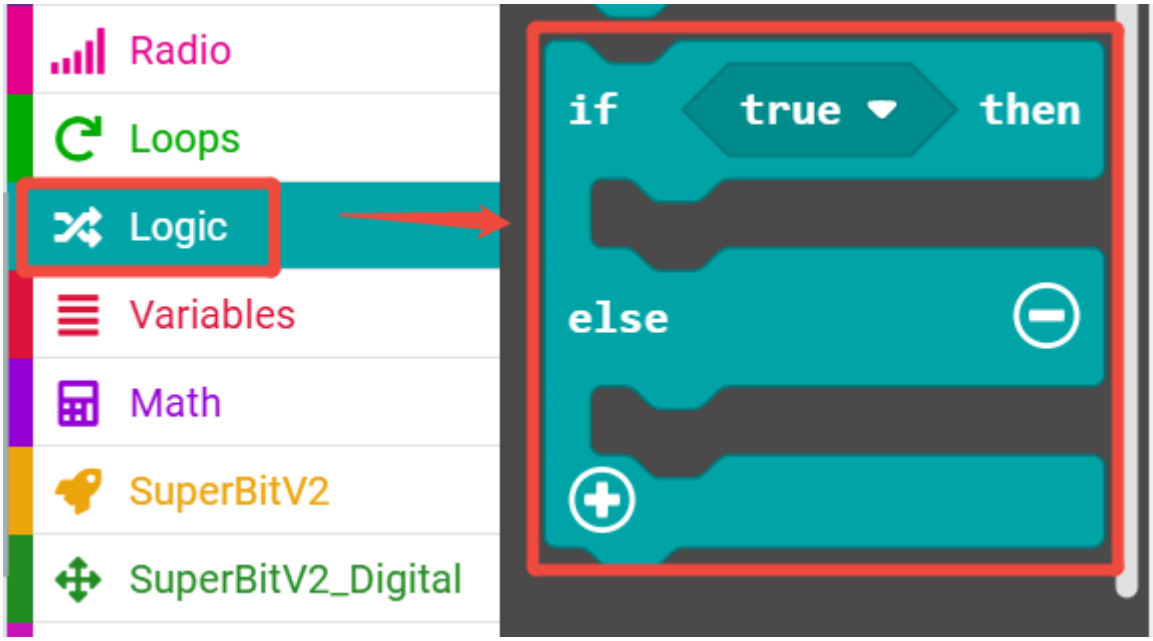
4.2 Building blocks used

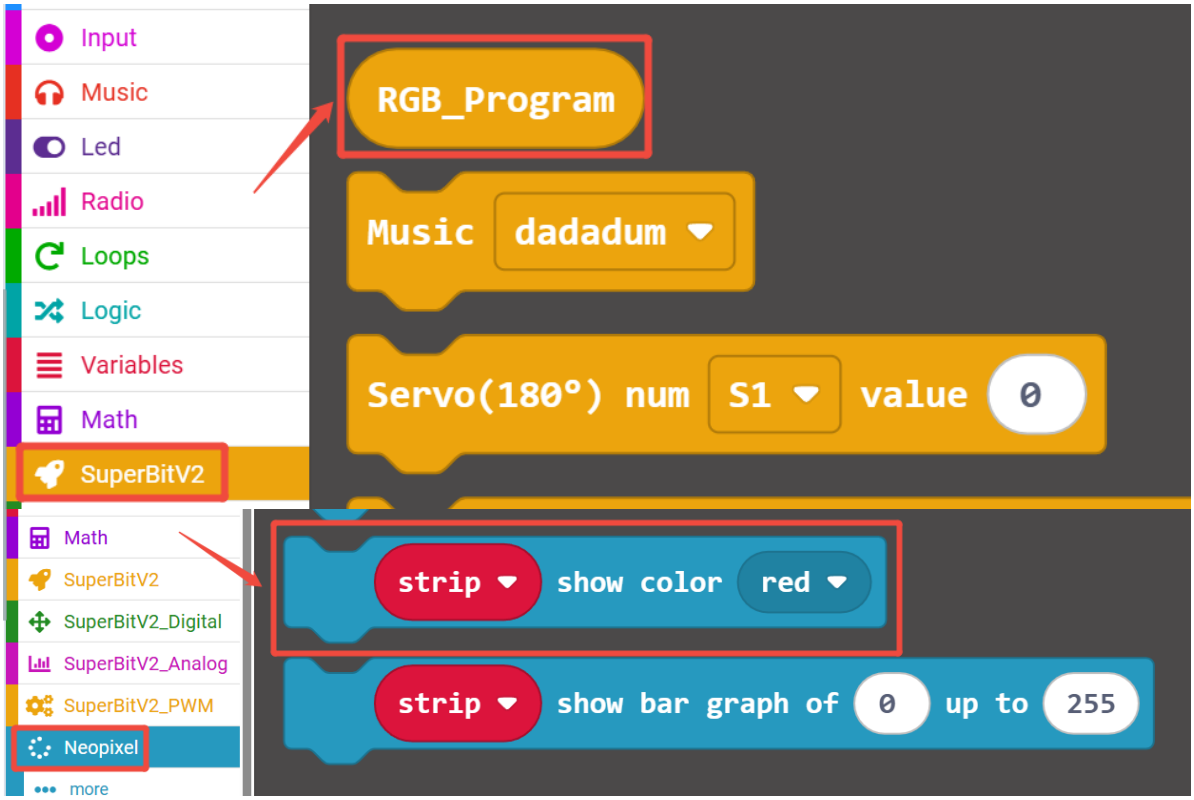
The locations of the building blocks required for this programming are shown in the figure below.


Search...
Basic
Input
Music
Led
Radio
Loops
Logic
Variables
Math
SuperBitV2
SuperBitV2_Digital
forever
on start


Led
more
Radio
Loops
Logic
Variables
Math
set brightness 255
led enable false

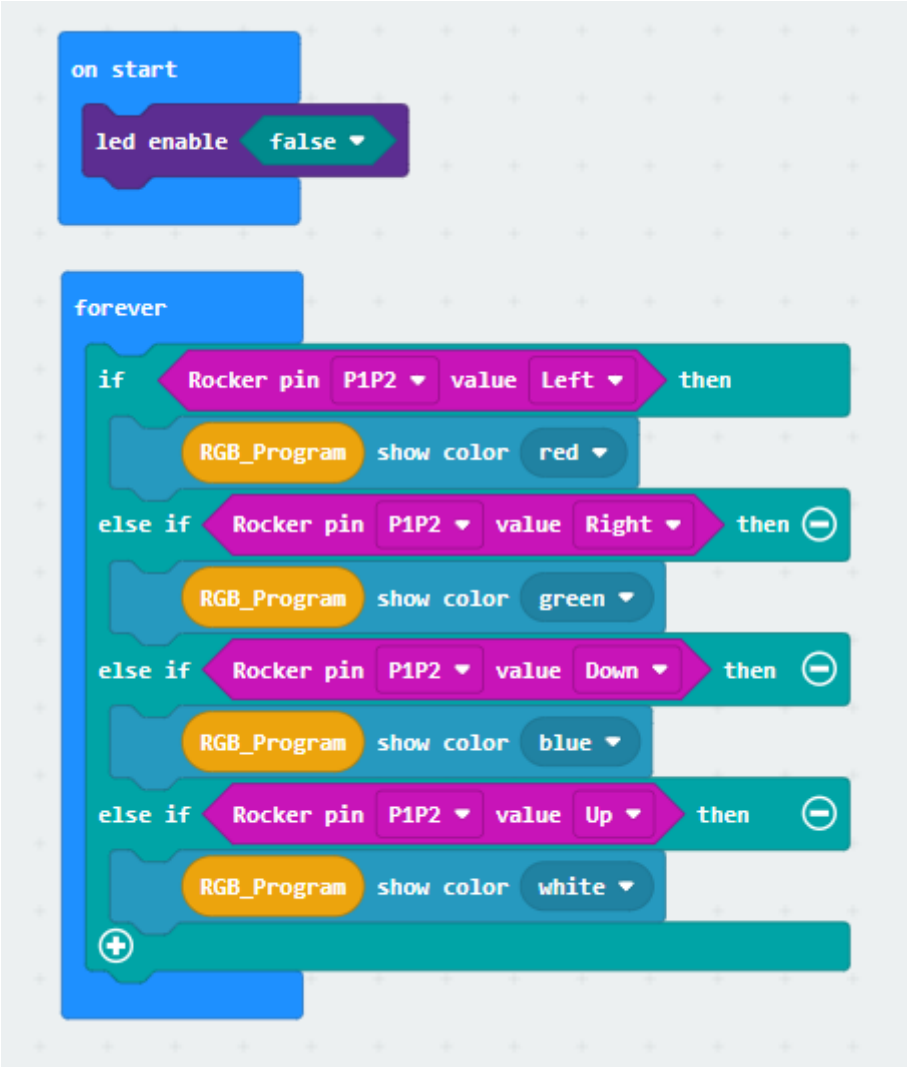

SuperBitV2
SuperBitV2_Digital
SuperBitV2_Analog
SuperBitV2_PWM
Rocker pin P1P2 value NoState





4.3 Combined blocks

The summary program is shown in the figure below.



You can also directly open the **Rocker-control-light.hex** file provided in this experiment and drag it into the browser that opens the URL, and the program diagram of this project source code will be automatically opened

5. Experimental phenomenon

After the program runs successfully, shake the joystick. If the joystick moves to the far left in the X direction, the RGB light will turn red. If it moves to the far right, the RGB light will turn green. If it moves to the bottom in the Y direction, the RGB light will turn blue. If it moves to the top, the RGB light will turn white. If you rotate the joystick, you can achieve the effect of alternating colored lights.