

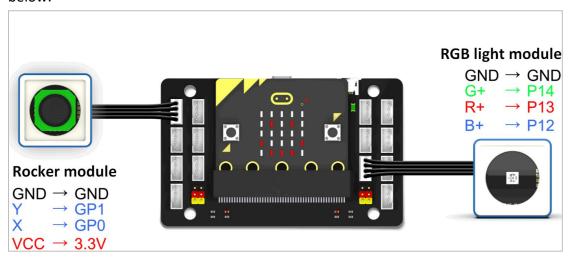
Rocker control light

1. Learning target

In this course, we will earn how to use Micro:bit, RGB light module and rocker module to realize gesture control light.

2. Preparation

Connect the module to Micro:bit board by Micro:bit expansion board, as shown below.



3. Programming method

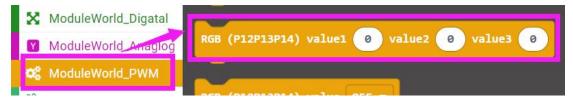
Mode 1 online programming: First, we need to connect the micro:bit to the computer by USB cable. The computer will pop up a USB flash drive and click on the URL in the USB flash drive: http://microbit.org/ to enter the programming interface. Add the Yahboom package https://github.com/YahboomTechnology/Module-World to program.

Mode 2 offline programming: We need to open the offline programming software. After the installation is complete, enter the programming interface, click \[\text{New Project } \] , add Yahboom package: \[\text{https://github.com/YahboomTechnology/Module-World} \] , you can start

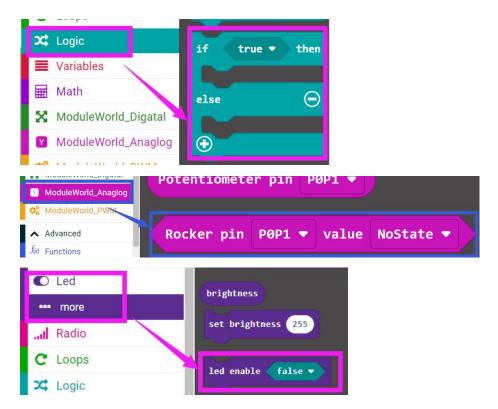
programming.

4.Looking for blocks

The following is the location of the building blocks required for this programming.







5.Combine block

The summary program is shown below.

```
forever

if Rocker pin POP1 ▼ value Left ▼ then

RGB (P12P13P14) value Red ▼

else if Rocker pin POP1 ▼ value Right ▼ then ←

RGB (P12P13P14) value Green ▼

else if Rocker pin POP1 ▼ value Down ▼ then ←

RGB (P12P13P14) value Blue ▼

else if Rocker pin POP1 ▼ value Up ▼ then ←

RGB (P12P13P14) value White ▼
```



6. Phenomenon

After the program is downloaded successfully. We can control the RGB light by shaking the rocker. If the rocker moves to the left-most in the X direction, the RGB light become red;

If the rocker moves to the right-most in the X direction, the RGB light become green; If the rocker moves to the up-most in the Y direction, the RGB light become blue; If the rocker moves to the down-most in the Y direction, the RGB light become white.