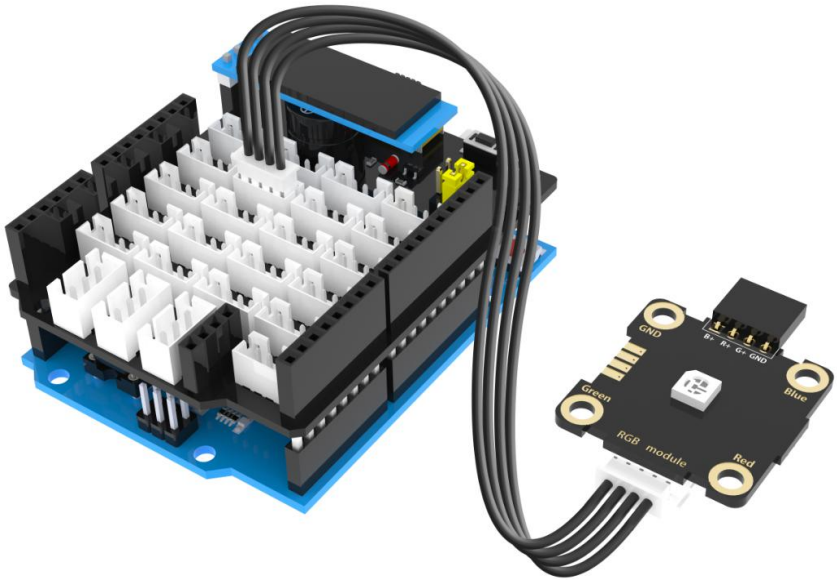
Experimental content: Light up RGB light

Experiment preparation: UNO board *1, Plugkit sensor expansion board *1, 4pin cable(PH2.0) *1, USB data cable *1, RGB module *1

The USB square port data cable is used to connect to the computer's USB port to upload programs or supply power. In addition, you can also use the battery and battery box we provide to connect to the DC power connector of the UNO board for power supply. It is safe to use both the DC interface and the USB interface, and the intelligent power switching circuit will automatically select the highest available voltage power source.

Experimental wiring:



The RGB light module is connected to the interface of the Plugkit sensor expansion board with silk screen (GND ~ 11 ~ 10 ~ 9), R +: ~ 10 G +: ~ 11 B +: ~ 9.

Note：

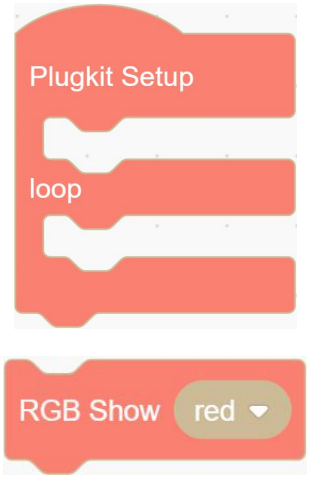
a. Each interface has its own corresponding screen printing. The module interface used in the course can also refer to the introduction of module document in the course.

b. In this section, all materials and wiring diagram be used in this course are consistent, which will not be listed later.

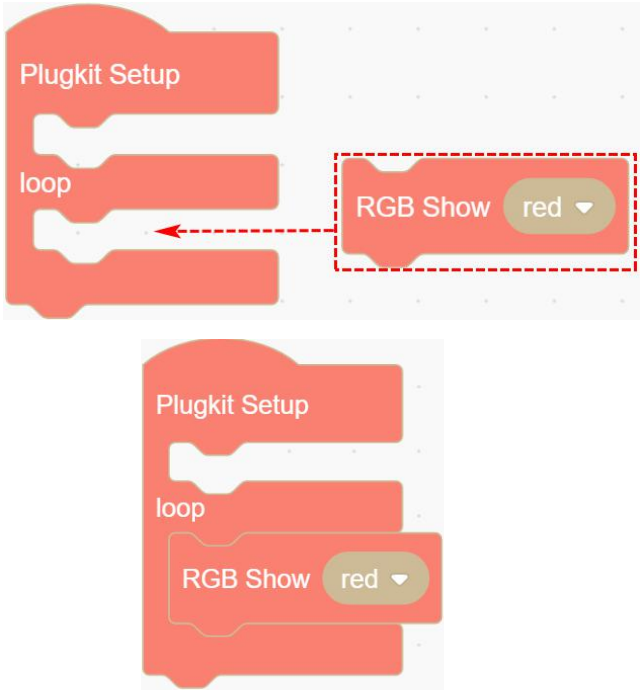
c. In the later courses, if RGB light modules need to connected to the interface (GND, ~ 11, ~ 10, ~ 9), we can keep this state, reduce the number of plugging to avoid damage RGB light module interface.

Experimental steps:

1. Select the main function block and RGB show block in [plugkit]. Since the main function block will be used in every experiment, it will not be listed later.



2. Select red for RGB show block and put it in loop block.

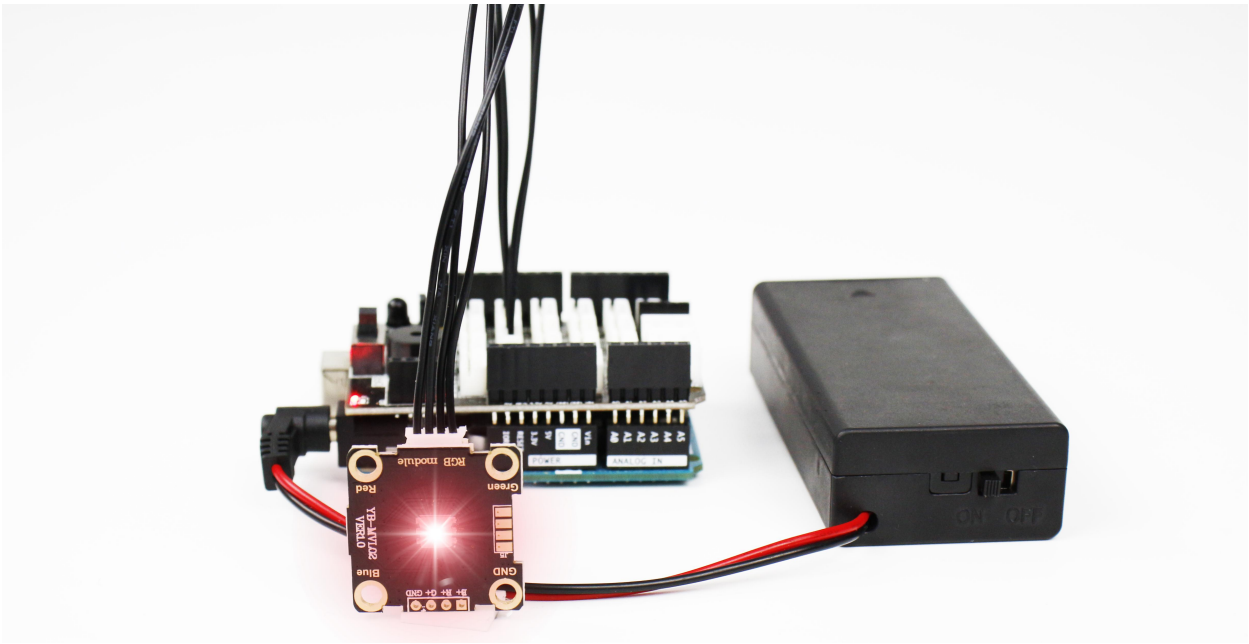


3. Connect to the computer through the USB data cable, click 

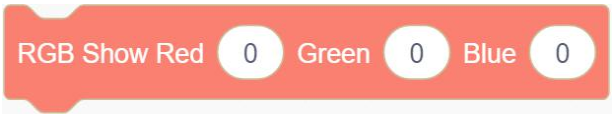
the upper right part of helloblock to switch to the code mode, select the serial port number other than COM1

, click the upload symbol  in the upper right corner, wait patiently for a moment, and when the lower right corner appears “Done compiling. Done uploading” indicates the upload is successful. For details, please refer to the [About helloblock programming]---[6.Helloblock basic operation].

Experimental phenomena: RGB module will light up red, and the color can be modified, so we have finished lighting the first light.



Expand: In this experiment, the RGB module display color block can be replaced the RGB module display color value block. As shown below.



We can display a specific color by entering a specific color value.