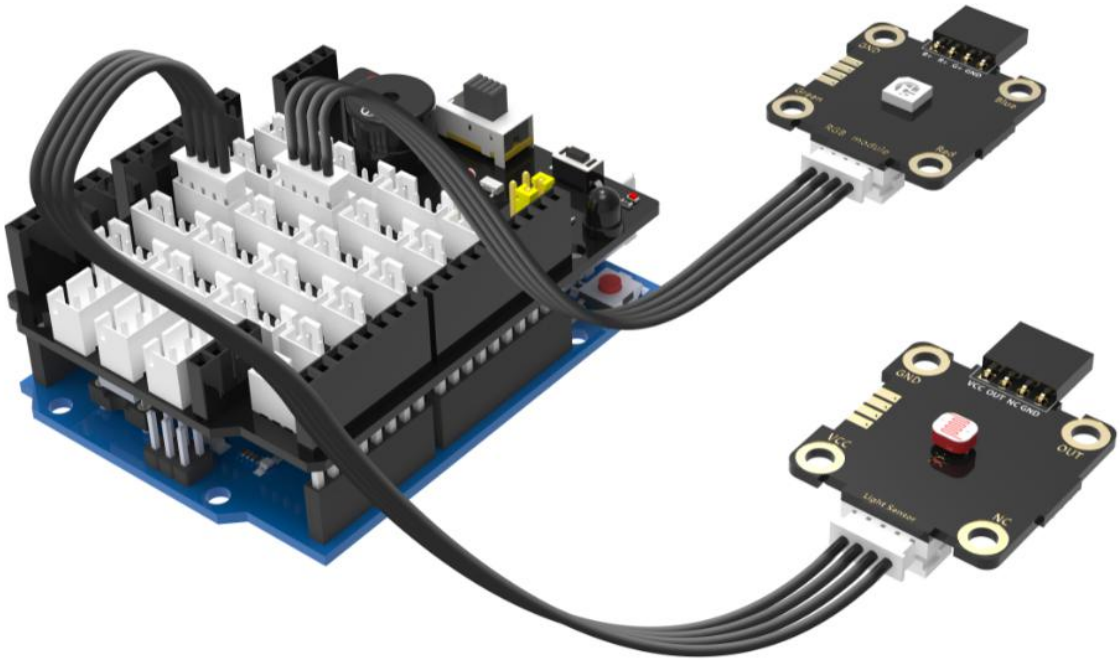
Experimental content: The photosensitive sensor detects the brightness of the external environment and automatically turns on the light when it is dark.

Experiment preparation: UNO board *1, Plugkit sensor expansion board *1, USB data cable *1, Photosensitive sensor module *1, RGB light module *1, 4pin cable(PH2.0) *2.

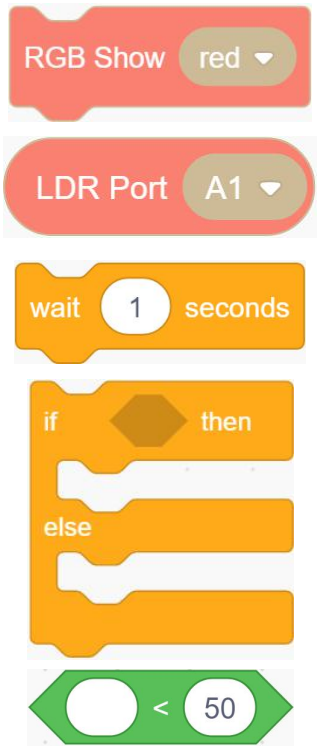
Experimental wiring:



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

Experimental steps:

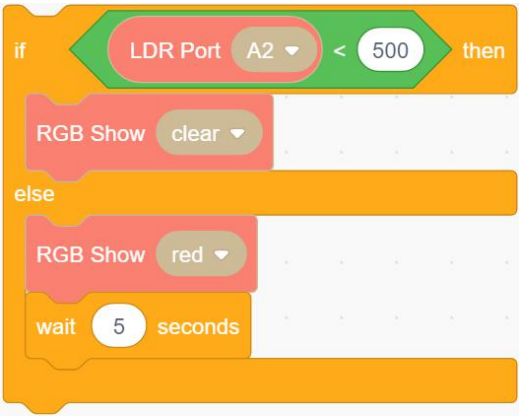
1.Select the following blocks in the [Plugkit], [Control], [Operators].



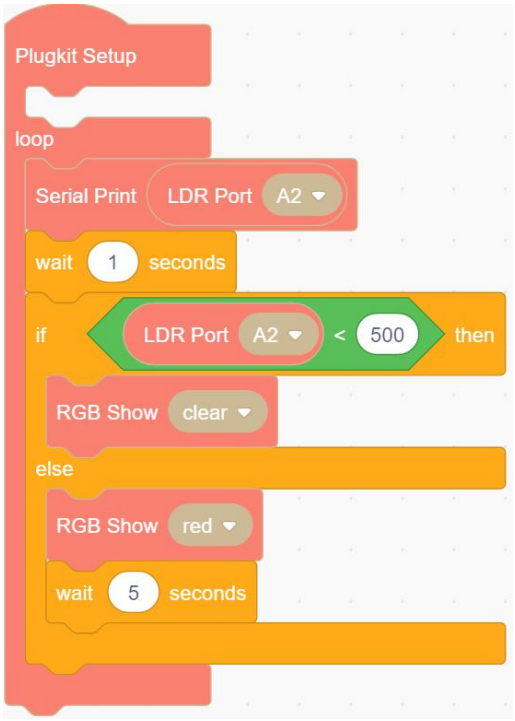
2.Put the photosensitive sensor block to the left of the "<" sign of the comparison block, and modify the value to the right of the "<" sign to 500. We take an intermediate value. After the actual test, in indoor light intensity, the photo-sensitivity value is about 350, and the photo-sensitivity

value is about 800 at night. If the light is stronger, the light sensitivity is lower, the light is weaker, and the light sensitivity is higher. Due to the difference in the delivery of each sensor, the value collected by the sensor may be slightly different.

3.If the light intensity detected by the photosensitive sensor is less than 500, turn off the RGB light, and if the light intensity detected by the light sensor is more than 500, turn on the RGB light for at least 5s.

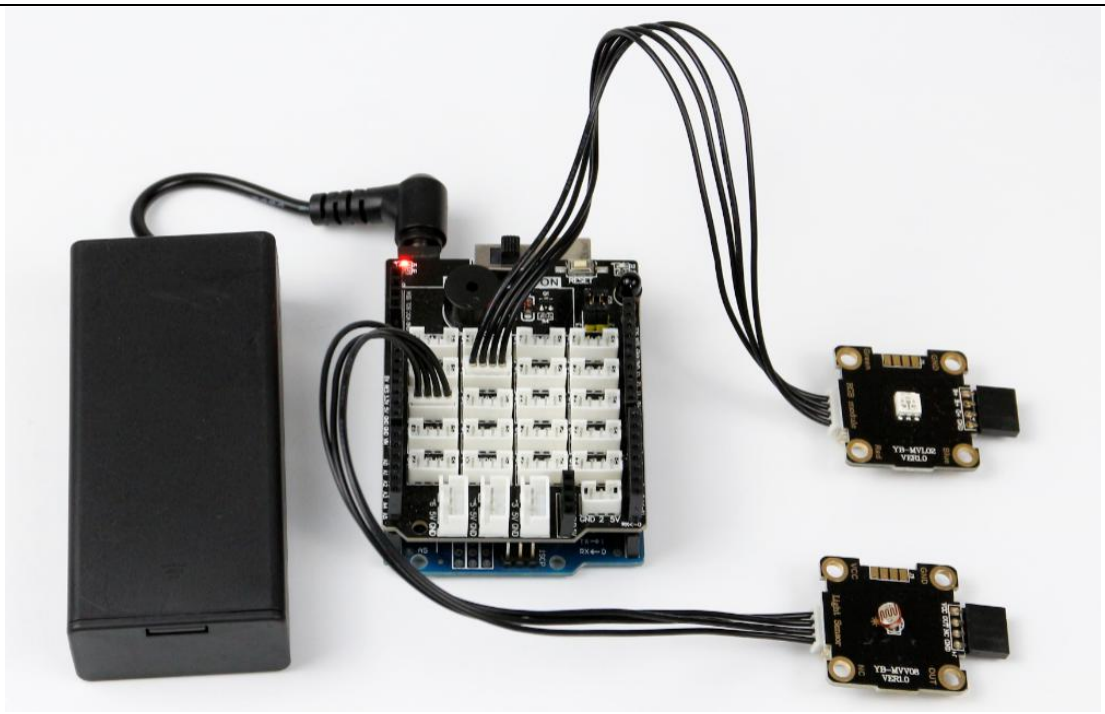


4.Add the block combination from step 3 to the serial print block, and combine the "wait for 1s" block, add them to the loop block. In this way, you can also view the light intensity value in the current environment through the serial port.



5.Compiling and uploading programs.

Experimental phenomena: If the light value detected by the light sensor is less than 500, RGB light will turn off. If the light value detected by the light sensor is more than 500, the light is turned on. You can use your hand to cover the light sensor to simulate the environment at night, and the RGB lights will be on.


ON
YB-MVL02
YB-MVV08