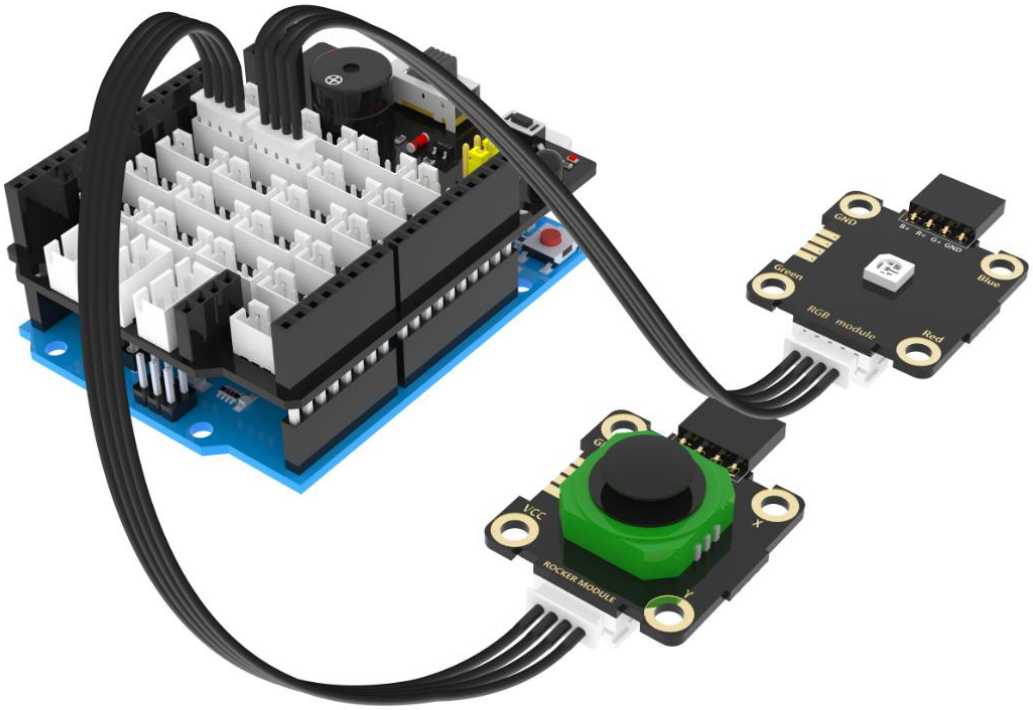
Experimental content: Control the RGB light module to light four colors through the four directions of the rocker

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

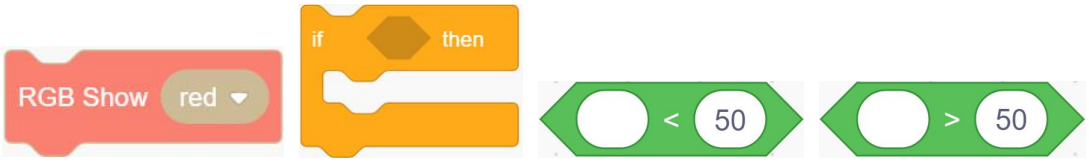
Experimental wiring:



The RGB 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 building blocks in the [Plugkit], [Operator] and [Control].



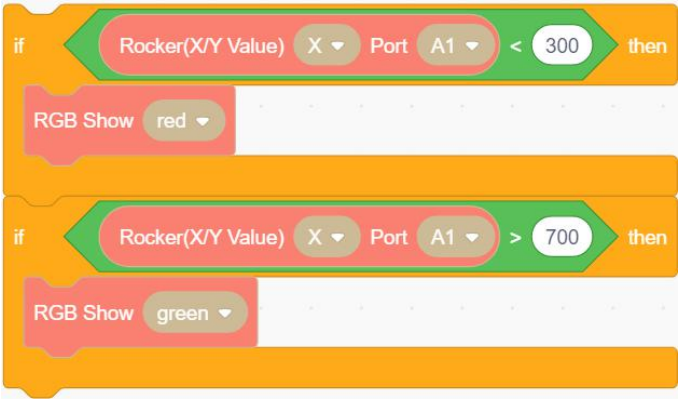
2.Set the elliptical rocker module block to X port A1, put it into the left side input of the operation block, and set the value of the right side input of the operation block to 300.

After testing. We found that when the rocker module moves in the X direction to the far left, the rocker value is 0, so as long as the value on the right side is greater than 0, we set it to 300 here.

When the rocker module moves in the X direction to the far right, the rocker value is 1023, so as

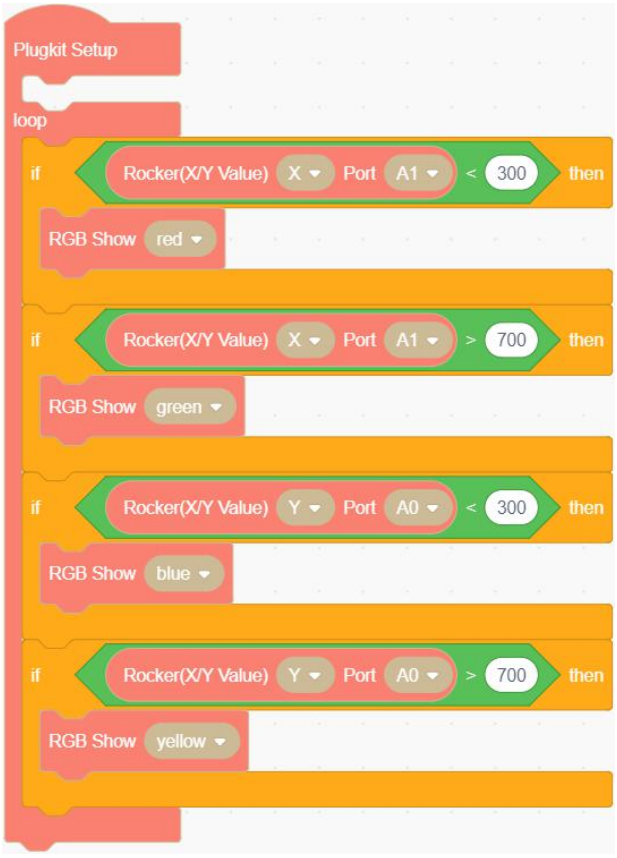
long as the value on the right side is smaller than 1023, we set it to 700 here.

3.Put the block of last step into the diamond-shaped Boolean entry of the conditional block. The RGB light module lights up red when the X analog value of the rocker module <300. The RGB light module lights up green when the X analog value of the joystick module> 700.



4.The setting in the Y direction is similar.

Note: The port in the Y direction needs to select A0, and the color of the RGB light module can be chosen by yourself.



5.Compiling and uploading programs.

Experimental phenomena: Near the terminal port is the downward direction of the Y direction. Using this as a standard to distinguish the X direction and the Y direction of the rocker module.

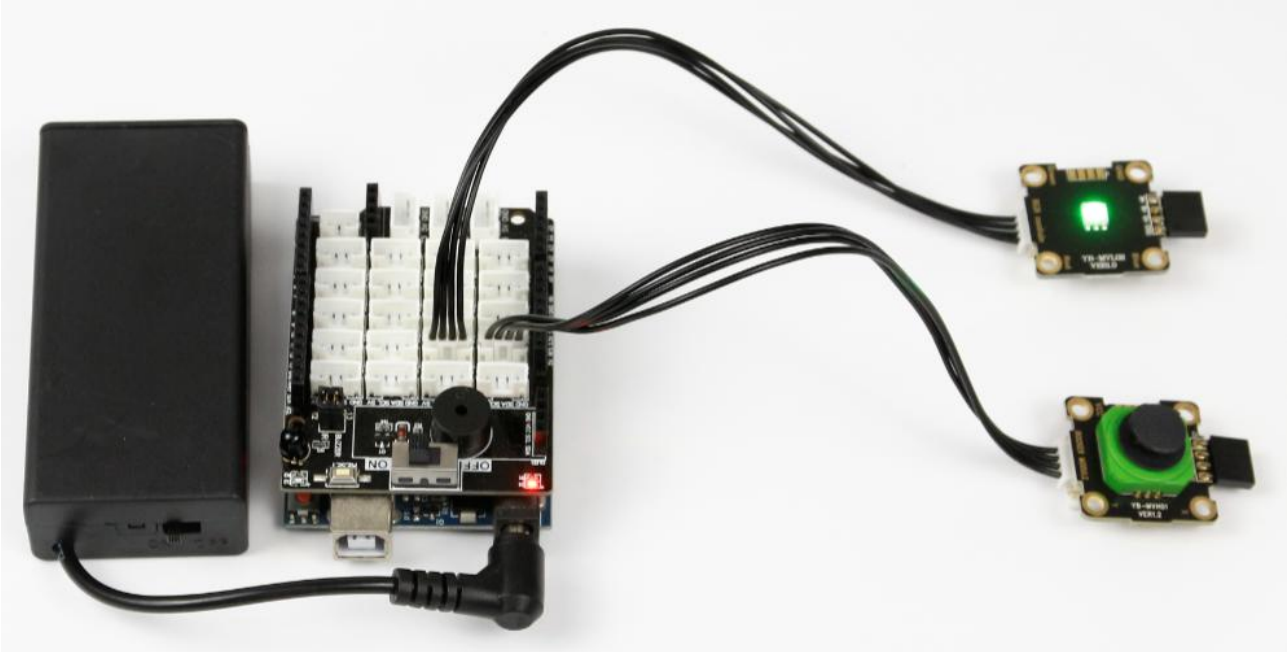
If the rocker moves in the X direction to the far left (X analog value <300), the RGB light is red;

if the X direction moves to the far right (X analog value> 700), the RGB light is green;

if the Y direction moves to the bottom (Y analog value <300), the RGB light is blue;

if the Y direction moves to the top (Y analog value> 700), the RGB light is blue;

Rotating the rocker can achieve the effect of alternating colored lights.



Expand: If you want to see the output value while operating the rocker, you can add the serial port block in the execution area of the conditional block. You can see the corresponding direction rocker value through the serial port debugging assistant. The printing speed is too fast to see clearly, you can add the "wait for 1s" block to make the serial port print only once.