

Experimental content:

Infrared remote control button power control to turn off the light and turn off the fan;

Buttons 1-7 control 7 colors of RGB lights;

Button 8 controls the alternating light;

beep controls the buzzer to sound;

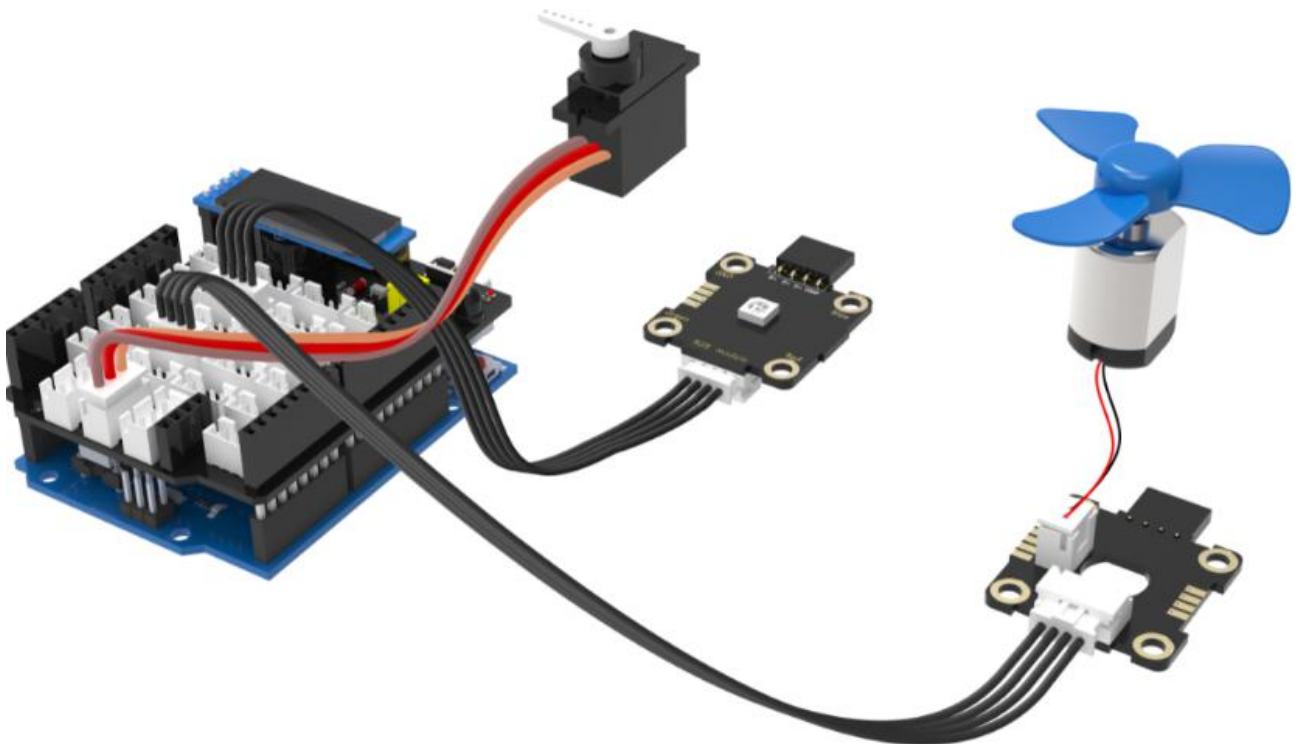
The light symbol controls the RGB light to turn on;

"+,-" Control the wind speed of the small fan of the motor;

"Up, left, right" control the steering angle of the steering gear 90 °, 0 °, 180 °;

Left turn to control the steering gear to turn clockwise, right turn to control the steering gear to turn counterclockwise, etc.

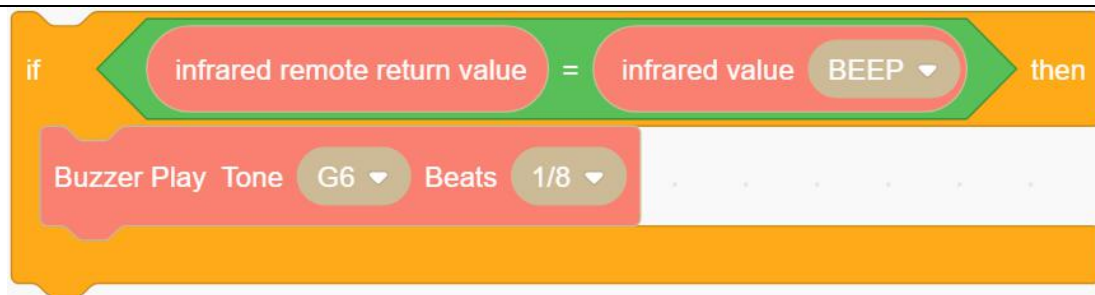
Experiment preparation: UNO board *1, Plugkit sensor expansion board *1, USB data cable *1, IR controller *1, RGB light module *1, Motor drive module *1, Motor fan *1, 9G metal digital servo*1, 4pin cable(PH2.0) *2.

Experimental wiring:**Experimental steps:**

1. Select the some blocks in [Plugkit], [Control], [Operation], and [Variable], as shown below, just for example.



2. When the infrared remote buzzer button is pressed, the buzzer module will emit a tone with a G6 beat of 1/8.



3. Tleft button to control the servo clockwise. Because of the infrared remote control itself, each time the infrared remote control button is pressed, the infrared receiver will receive the signal from the key multiple times, so in order to avoid repeated execution multiple times, we can add another Variables are restricted so that the values received by the infrared remote control and the variables satisfy the conditions at the same time.



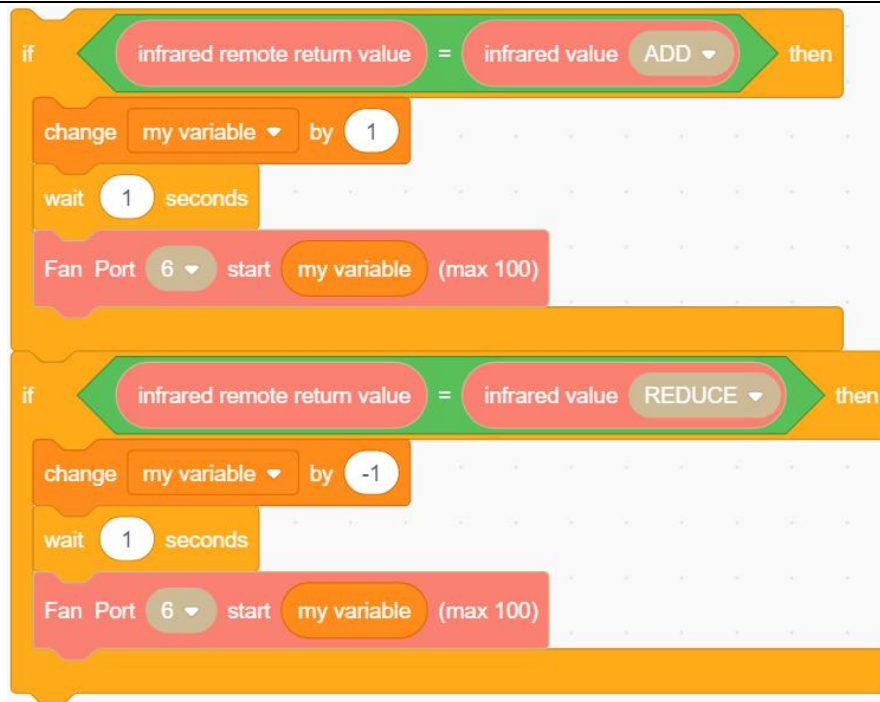
4. When Tleft button is press and the value of the variable servo > 0, it will execute "set servo to 0" and the port 5 of the servo changes from 0° to 180° and each delay 15ms per 1° rotation. Because The variable "servo" is initialized to 1, so when we press the Tleft button and the variable "servo" > 0, it will only be executed once. After the variable "servo" is set to 0, clockwise rotation will not be executed.



5. When Tright button is press and the value of the variable servo < 1, it will execute "set servo to 0", the servo rotates counterclockwise.



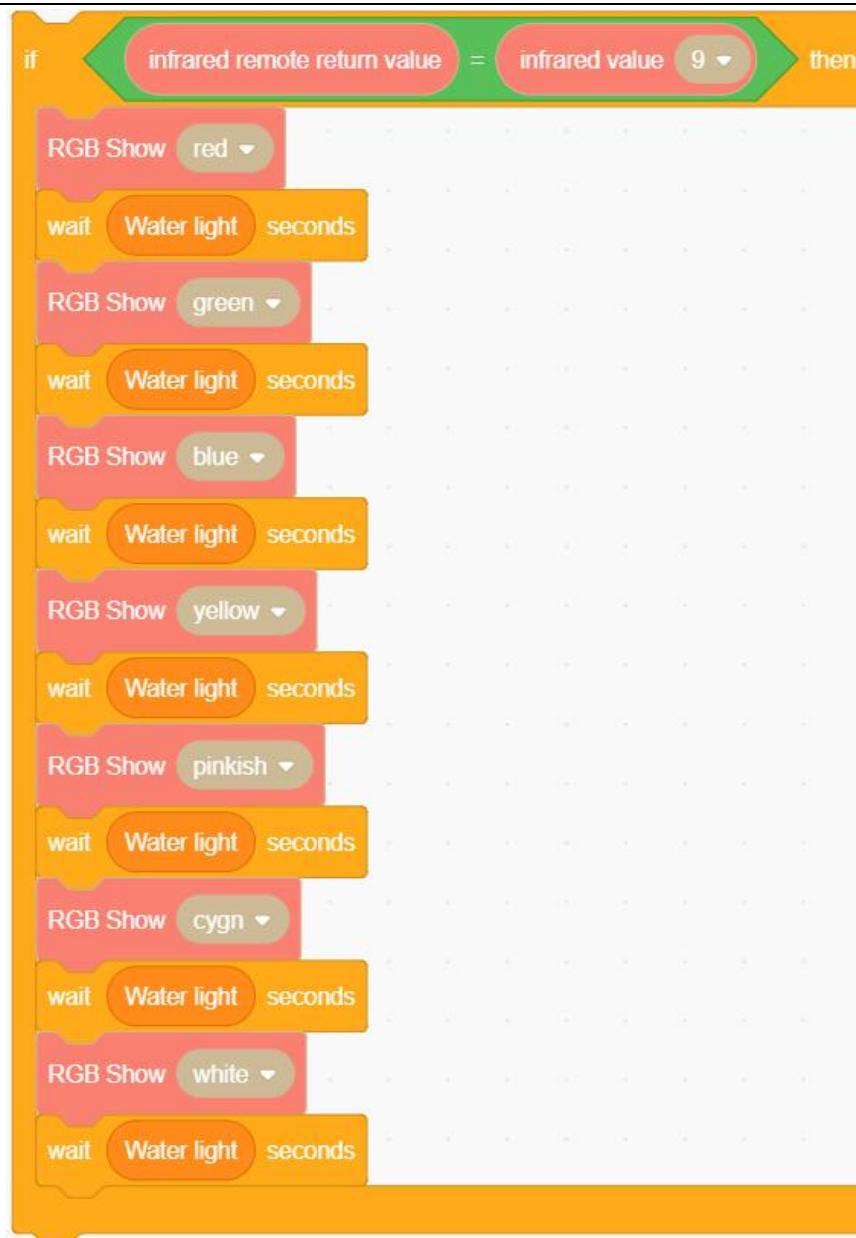
6. About control fan, as shown below.



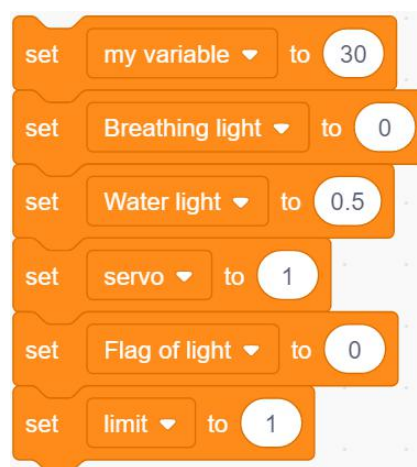
About control servo, as shown below.



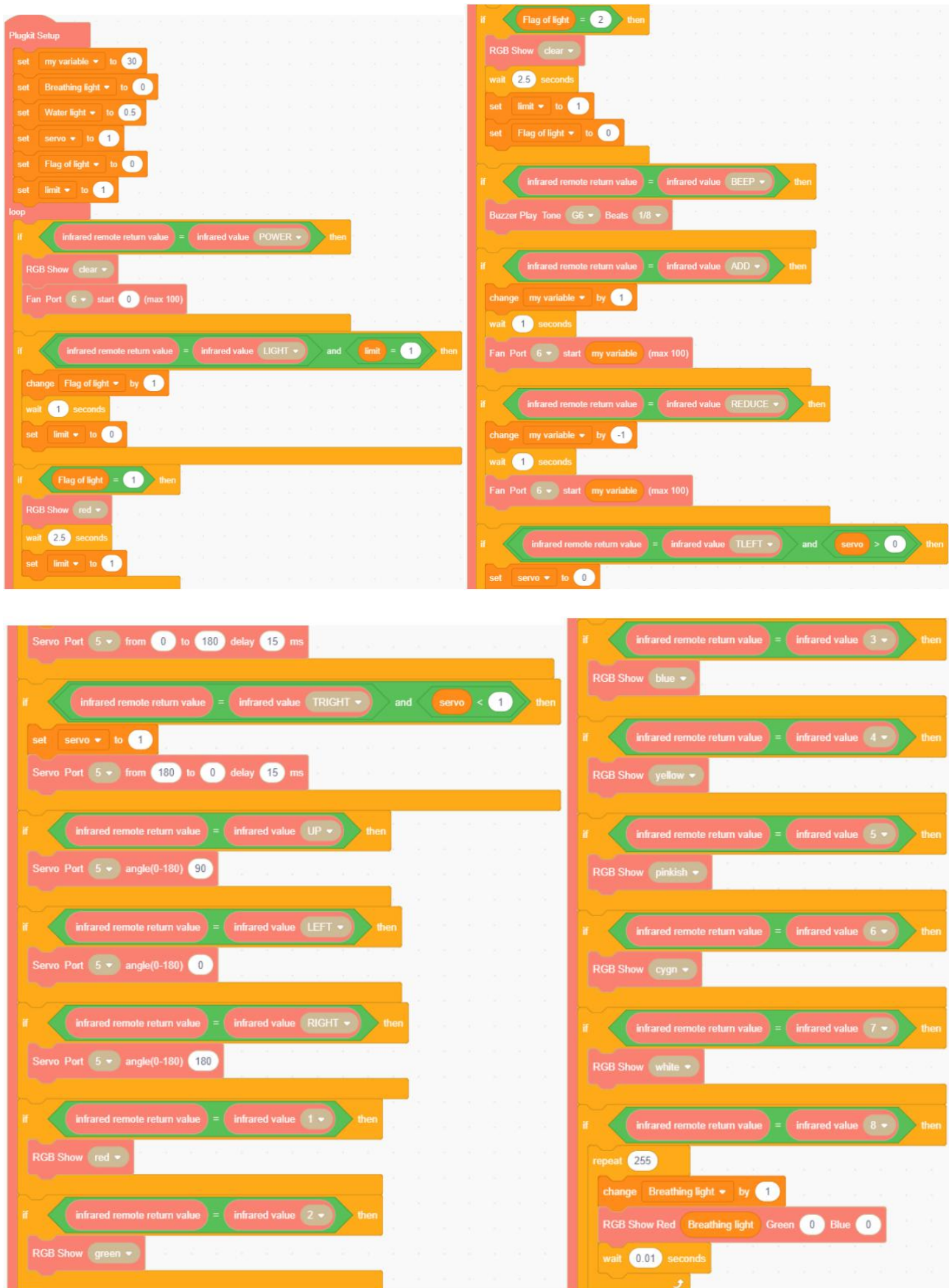
About control water light, as shown below.

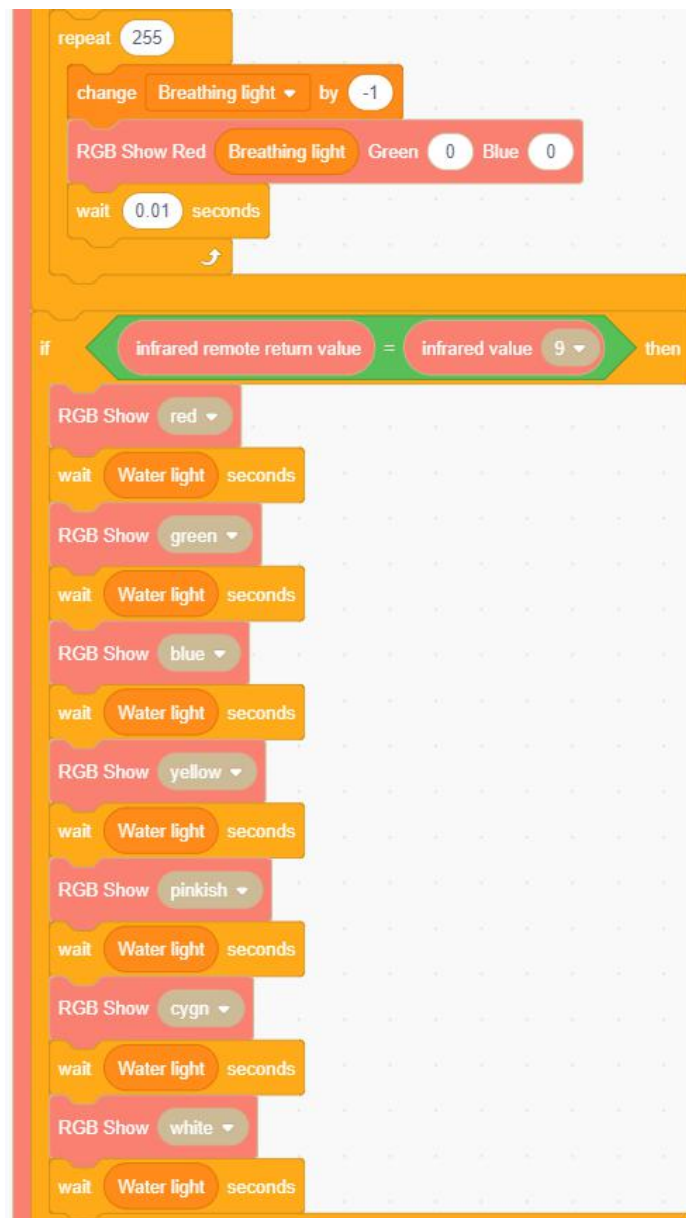


The variable initialization part,as shown below.



7. Because the final program is too long, we only provide program step-by-step. The complete program can refer to the .sb3 file provided by us.





8.Compiling and uploading programs.

Note: If the USB data cable is used for power supply, the UNO board may restart due to unstable voltage. It is recommended to use a battery box for power supply.

Experimental phenomena: This lesson combines some of the previously learned content with infrared remote control to achieve a simple infrared remote control experimental.