Jellyfish Night Light

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Step 1: How to work:

The state switch of the jellyfish light can be controlled by operating two buttons, the red button is the confirm button, and the blue button is the state switch button.

Step 2: Material appliances:

1. Material:

Aduino breadboard;
Several Dupont lines;
Three RGB lights and two buttons;
A number of resistance;

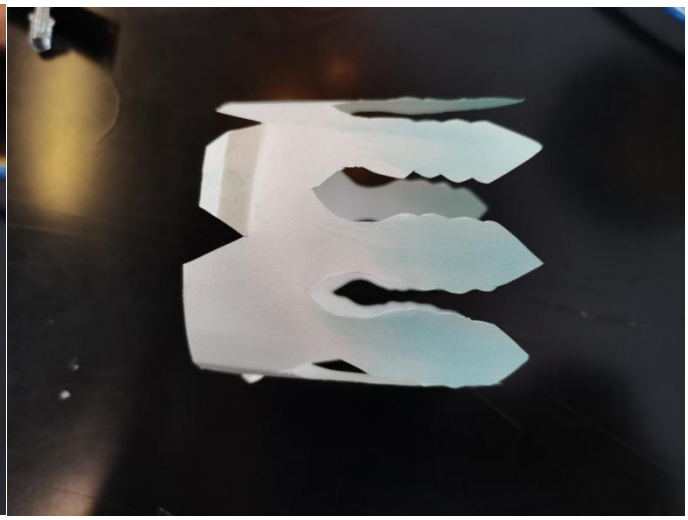
2. Jellyfish decoration materials:

White paper;
Color pen;
Glue;

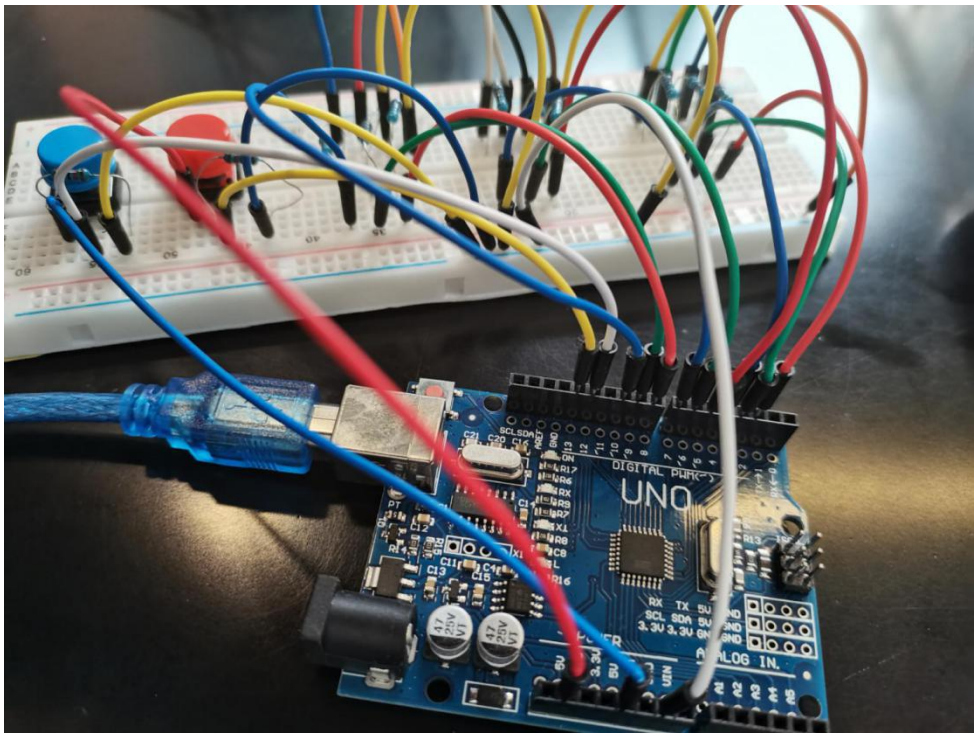
Scissors;
A number of wire;
Wire pliers

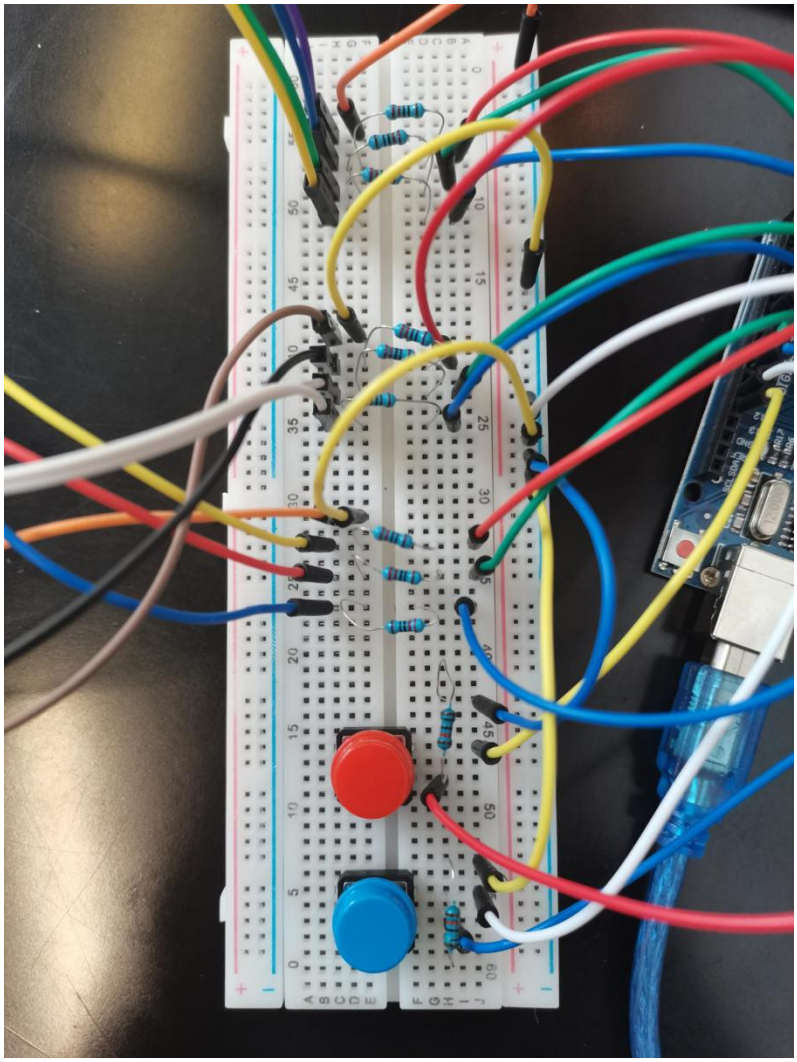
Step 3: Production of jellyfish

1. Cut the white paper to a pentagon
2. Use a crayon to paint the white paper with the colors you want
3. Apply glue to the side of the paper and paste it into the shape of a jellyfish cap
4. Make jellyfish feet and color them
5. Combination jellyfish, cover on the LED lamp



Step 4: Connections





redPin_1 -- 2;
greenPin_1 -- 3;
bluePin_1 -- 4;

redPin_2 -- 5;
greenPin_2 -- 6;
bluePin_2 -- 7;

redPin_3 -- 8;
greenPin_3 -- 9;
bluePin_3 -- 10;

buttonPin_1 -- 12;
buttonPin_2 -- 13;

Step 5: Code

```
int redPin_1= 2;
int greenPin_1 = 3;
int bluePin_1 = 4;

int redPin_2= 5;
int greenPin_2 = 6;
int bluePin_2 = 7;


int redPin_3= 8;
int greenPin_3 = 9;
int bluePin_3 = 10;

int Mode = 12;
int Mode_1 = 13;

int Keynum = 1;

void setup() {
  pinMode(redPin_1, OUTPUT);
  pinMode(greenPin_1, OUTPUT);
  pinMode(bluePin_1, OUTPUT);
  pinMode(redPin_2, OUTPUT);
  pinMode(greenPin_2, OUTPUT);
  pinMode(bluePin_2, OUTPUT);
  pinMode(redPin_3, OUTPUT);
  pinMode(greenPin_3, OUTPUT);
  pinMode(bluePin_3, OUTPUT);
  pinMode(Mode,OUTPUT);
  pinMode(Mode_1,OUTPUT);

  Serial.begin(9600);

}
```

```
void loop() {
  while(1)
  {
    if (digitalRead(Mode) == 1)
    {
      delay(500);
      Keynum++;
      delay(500);
      if (Keynum >= 3)
      {
        Keynum = 1;
      }
    }
    if(digitalRead(Mode_1) == 1)
    {
      break;
    }
  }

  switch(Keynum){
    case 1:
      setColor(255, 0, 0);  // 红色
      delay(1000);
      setColor(0, 255, 0);  // 绿色
      delay(1000);
      setColor(0, 0, 255);  // 蓝色
      delay(1000);
      setColor(255, 255, 0);  // 黄色
      delay(1000);
      setColor(80, 0, 80);  // 紫色
      delay(1000);
      setColor(0, 255, 255);  // 浅绿色
      delay(1000);
    break;
```

```
    case 2:
    setColor(255, 0, 0);  // 红色
    for (int a=0; a<=255;a++)
    {
      analogWrite(redPin_1,a);
      analogWrite(greenPin_1,a);
      analogWrite(bluePin_1,a);
      analogWrite(redPin_2,a);
      analogWrite(greenPin_2,a);
      analogWrite(bluePin_2,a);
      analogWrite(redPin_3,a);
      analogWrite(greenPin_3,a);
      analogWrite(bluePin_3,a);
      delay(8);//当前亮度级别维持的时间,单位毫秒
    }
    for (int a=255; a>=0;a--)
    {
      analogWrite(redPin_1,a);
      analogWrite(greenPin_1,a);
      analogWrite(bluePin_1,a);
      analogWrite(redPin_2,a);
      analogWrite(greenPin_2,a);
      analogWrite(bluePin_2,a);
      analogWrite(redPin_3,a);
      analogWrite(greenPin_3,a);
      analogWrite(bluePin_3,a);
      delay(10);//当前亮度的维持的时间,单位毫秒
    }
    delay(800);

  }
}
void setColor(int redValue, int greenValue, int blueValue) {
  analogWrite(redPin_1, redValue);
  analogWrite(greenPin_1, greenValue);
  analogWrite(bluePin_1, blueValue);
  analogWrite(redPin_2, redValue);
  analogWrite(greenPin_2, greenValue);
  analogWrite(bluePin_2, blueValue);
  analogWrite(redPin_3, redValue);
  analogWrite(greenPin_3, greenValue);
  analogWrite(bluePin_3, blueValue);
}
```