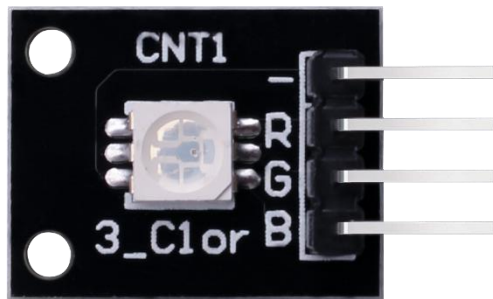


---

## SMD RGB LED Module

### DESCRIPTION:

RGB LED module consists of a full-color LED made by R, G, B three pin PWM voltage input can be adjusted. Primary colors (red / blue / green) strength in order to achieve full color mixing effect. Control of the module with the Arduino can be achieved Cool lighting effects.



### Specification:

- Red Vf: 1.8 to 2.1V
- Green Vf: 3.0 to 3.2V
- Blue Vf: 3.0 to 3.2V
- Red color: 620-625 nm
- Green color: 520-525 nm
- Blue color: 465-470 nm

### PIN CONFIGURATION:

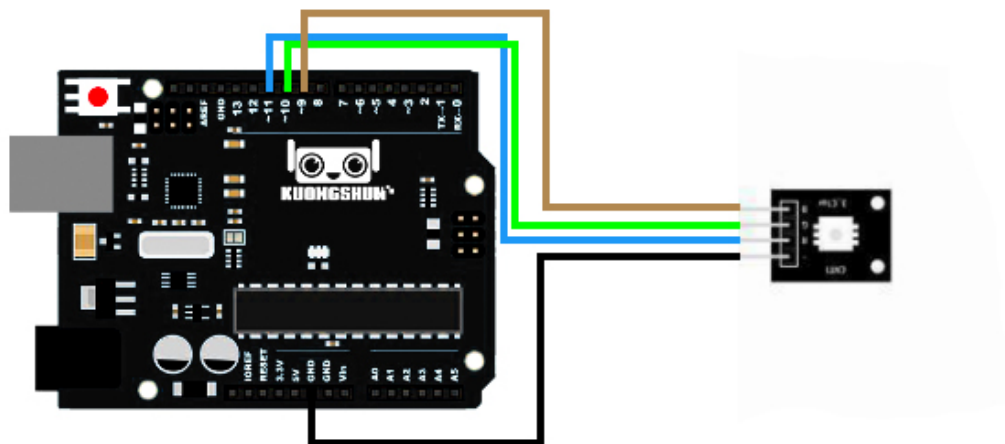
- 1、 “R”: Red light
- 2、 “G” : Green light
- 3、 “B” : Blue light
- 4、 “-”:Ground

---

### Example:

In this example, we blink an LED and using an RGB LED we can generate any color we want.

Here is the physical connection:



### Code:

```
#define BLUE 11  
#define GREEN 10  
#define RED 9
```

---

```
void setup()
{
  pinMode(RED, OUTPUT);
  pinMode(GREEN, OUTPUT);
  pinMode(BLUE, OUTPUT);
  digitalWrite(RED, HIGH);
  digitalWrite(GREEN, LOW);
  digitalWrite(BLUE, LOW);
}

// define variables
int redValue;
int greenValue;
int blueValue;

// main loop
void loop()
{
  #define delayTime 10 // fading time between colors

  redValue = 255; // choose a value between 1 and 255 to change the color.
  greenValue = 0;
  blueValue = 0;

  // this is unnecessary as we've either turned on RED in SETUP
  // or in the previous loop ... regardless, this turns RED off
  // analogWrite(RED, 0);
  // delay(1000);
```

---

```
for(int i = 0; i < 255; i += 1) // fades out red bring green full when i=255
```

```
{  
redValue -= 1;  
greenValue += 1;  
// The following was reversed, counting in the wrong directions  
// analogWrite(RED, 255 - redValue);  
// analogWrite(GREEN, 255 - greenValue);  
analogWrite(RED, redValue);  
analogWrite(GREEN, greenValue);  
delay(delayTime);  
}
```

```
redValue = 0;  
greenValue = 255;  
blueValue = 0;
```

```
for(int i = 0; i < 255; i += 1) // fades out green bring blue full when i=255
```

```
{  
greenValue -= 1;  
blueValue += 1;  
// The following was reversed, counting in the wrong directions  
// analogWrite(GREEN, 255 - greenValue);  
// analogWrite(BLUE, 255 - blueValue);  
analogWrite(GREEN, greenValue);  
analogWrite(BLUE, blueValue);  
delay(delayTime);  
}
```

```
redValue = 0;
```

---

```
greenValue = 0;
blueValue = 255;

for(int i = 0; i < 255; i += 1) // fades out blue bring red full when i=255
{
    // The following code has been rearranged to match the other two similar sections
    blueValue -= 1;
    redValue += 1;
    // The following was reversed, counting in the wrong directions
    // analogWrite(BLUE, 255 - blueValue);
    // analogWrite(RED, 255 - redValue);
    analogWrite(BLUE, blueValue);
    analogWrite(RED, redValue);
    delay(delayTime);
}
}
```