## Two color LED module

Two color LED module for Arduino, emits red and green light. You can adjust the amount of each color using PWM.

This module consist of a common cathode 3mm or 5mm red/green LED. Since operating voltage is 2.0v~2.5V, you'll need to use limiting resistors to prevent burnout when connecting to the Arduino.

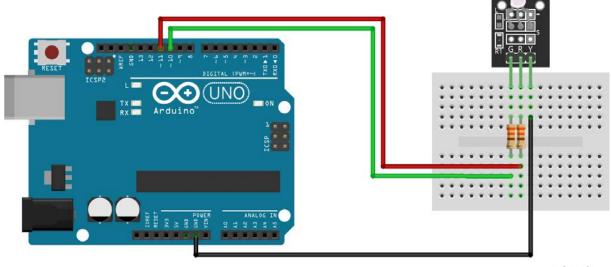


Operating Voltage	2.0v ~ 2.5v
Using Current	10mA
Diameter	3mm / 5mm
Package Type	Diffusion
Color	Red + Green
Beam Angle	150
Wavelength	571nm + 644nm
Luminosity Intensity	20-40; 40-80

## **Pinout and Connection to Arduino**

We'll use a couple of  $330\Omega$  resistors to limit the current from the Arduino and prevent burning the LED.

Module	Breadboard	Arduino
G	$330\Omega$ resistor	Pin 10
R	330Ω resistor	Pin 11
Υ		GND



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## **Arduino Example Sketch**

The following Arduino sketch will gradually alternate between red and green color.

```
int redpin = 11; // pin for red signal
int greenpin = 10; // pin for green signal
int val;
void setup() {
         pinMode(redpin, OUTPUT);
         pinMode(greenpin, OUTPUT);
void loop() {
         for(val = 255; val > 0; val--) {
                  analogWrite(redpin, val); //dim red
                   analogWrite(greenpin, 255 - val); // brighten green
                  delay(15);
         for(val = 0; val < 255; val++) {</pre>
                   analogWrite(redpin, val); //brighten red
                   analogWrite(greenpin, 255 - val); //dim green
                   delay(15);
         }
}
```