KE2017 Keyes Brick Plug-in RGB Module (Pad Hole) Anti-reverse White Terminal

Overview

This is a commonly used RGB module which uses F5-full-color RGB fog-shaped common cathode LED elements. When controlling it, we need to connect the RGB module to PWM port of the MCU and "-" to GND. Changing the three PWM value, we could control the ratio of red, green and blue lights on LED element as well as the different colors of LED of RGB module. Theoretically, as the scale of this three color light changes, the light with all colors can be simulated.

The module is compatible with various control boards, such as Arduino microcontrollers. The module comes with an anti-reverse white terminal with a pitch of 2.54mm.

When in use, we can connect to the microcontroller by a DuPont line. In order to connect efficiently, we also specially designed an expansion board fully compatible with the Arduino UNO R3 microcontroller. We only need to stack the expansion board to the UNO R3 microcontroller with a 4P double-head XH2.54 plug cable, which is simple and convenient.

In the meantime, there are 2 position holes with a diameter of 3mm on the module.

Specifications

Working voltage: DC 3.3-5V

Interface: 4pin anti-reverse interface with 2.54mm interval
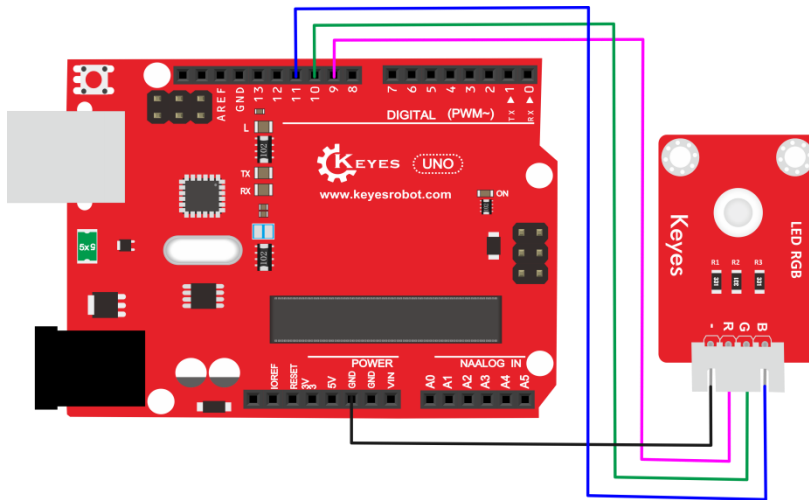
Positioning hole size: 3mm in diameter

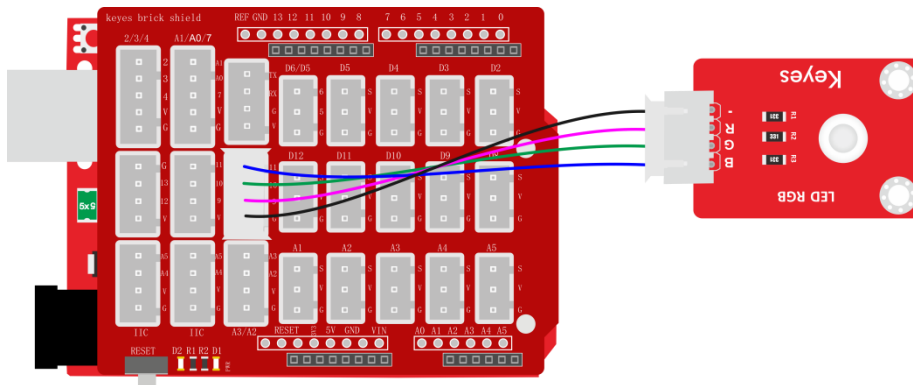Control signal: digital signal (PWM signal)

Size: 34 * 22 * 12mm

Weight: 2.9g

Connection Diagram

Without Expansion Board：

With Expansion Board：

Test Code

```
int redPin = 9;  // R-the control pin of Red LED, connect to
pin 9 of Arduino
```

```arduino
int greenPin = 10;  //  G-the control pin of Green LED, connect
to pin 10 of Arduino


int bluePin = 11;  //  B-the control pin of Blue LED, connect
to pin 11 of Arduino


  void setup()

  {

        pinMode(redPin, OUTPUT); //Set pin 9 corresponding
  to redPin to output

        pinMode(greenPin, OUTPUT); // Set the pin 10
  corresponding to greenpin to output

        pinMode(bluePin, OUTPUT); //  Set the pin 11
  corresponding to bluepin to output

  }


  void loop()

  {
```

```
// Basic colors:

color(255, 0, 0); // red light is on

delay(1000); // delay for 1 second

color(0,255, 0); //green light is on

delay(1000); //delay for 1 second

color(0, 0, 255); // blue light is on

delay(1000); //delay for 1 second


// Example blended colors:

color(255,255,0); // yellow light is on

delay(1000); //delay for 1 second

color(128,0,255); // purple light is on

delay(1000); //delay for 1 second

color(255,255,255); // white light is on

delay(1000); //delay for 1 second

color(0,0,0); // turn off led

delay(1000); //delay for 1 second

}
```

```
void color (unsigned char red, unsigned char green, unsigned
char blue)  //Color control function

{

        analogWrite(redPin, red);

        analogWrite(greenPin,green);

        analogWrite(bluePin, blue);

}
```

Test Result

Burn the test code and wire according to the connection diagram.
After power on, the RGB module will display red for 1 second,
green for 1 second, blue for 1 second, yellow for 1 second,
purple for 1 second, white for 1 second, and turn off for 1
second and then loops alternately.