

树莓派 RGP 灯

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原文链接: <https://ld246.com/article/1564195555423>

来源网站: [链滴](#)

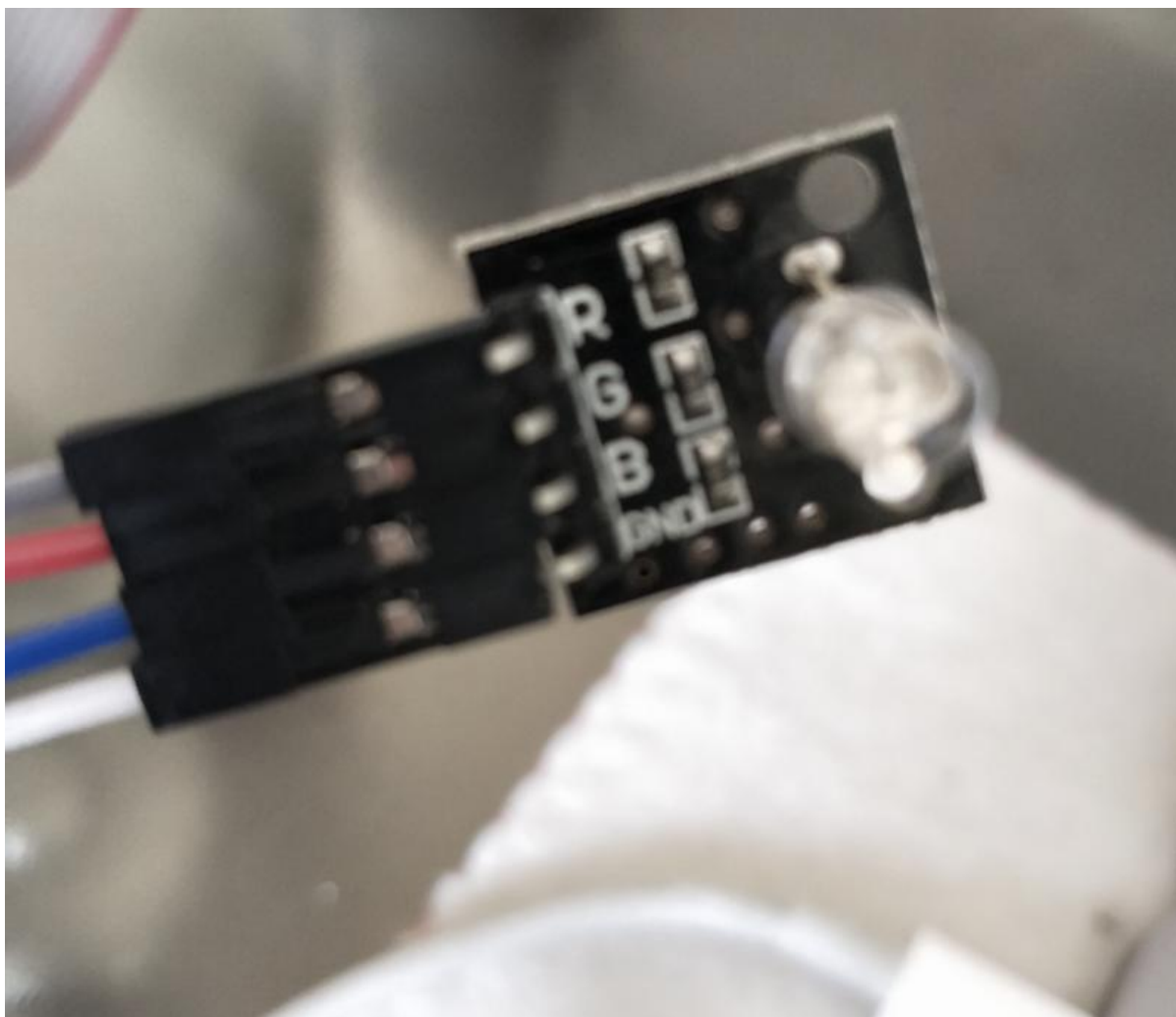
许可协议: [署名-相同方式共享 4.0 国际 \(CC BY-SA 4.0\)](#)

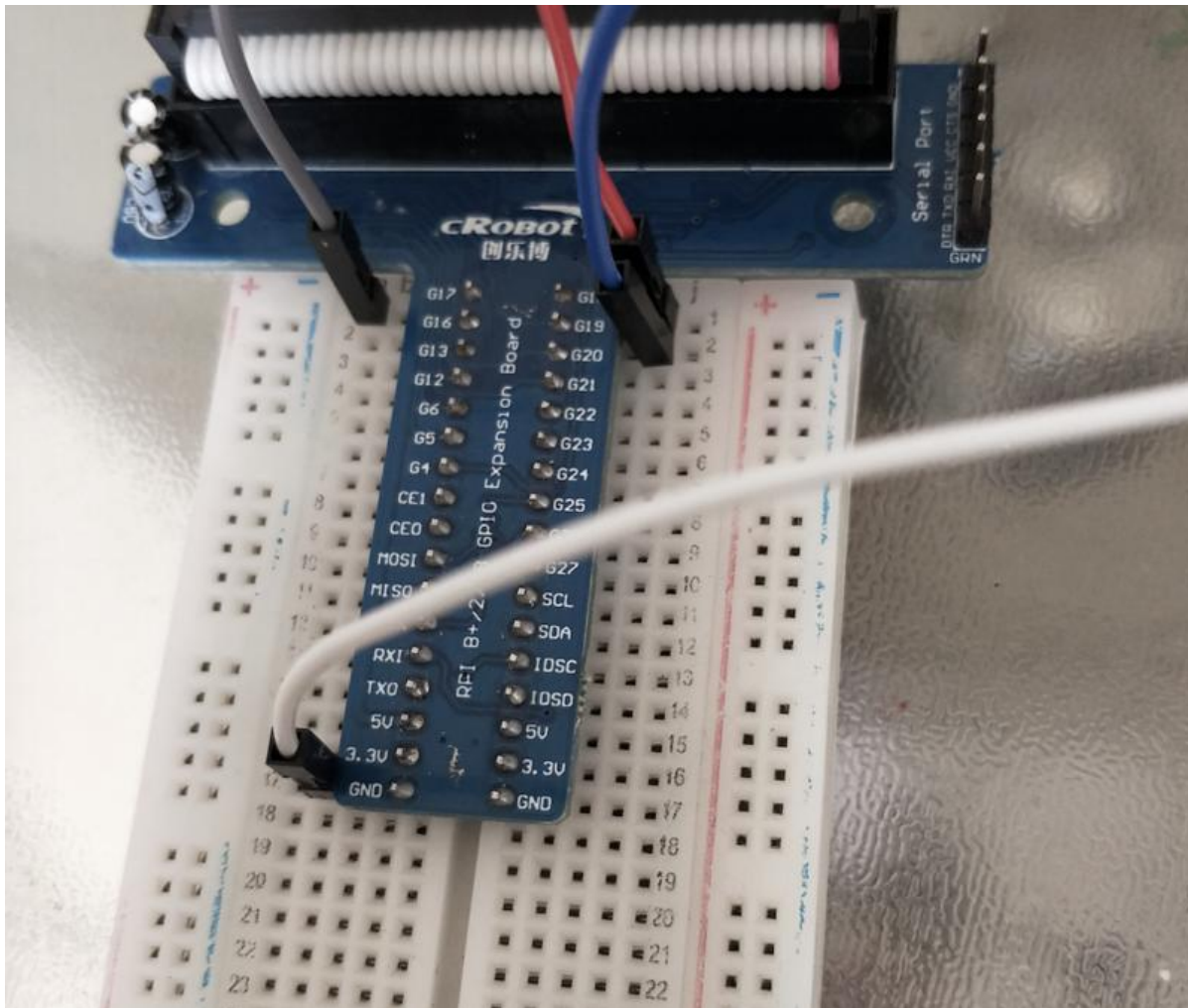
引脚

R17 G18 B19 GND 四根线

主要用到Python的GPIO

图片





代码

```
import RPi.GPIO
import time
```

```
R, G, B = 17, 18, 19
```

```
RPi.GPIO.setmode(RPi.GPIO.BCM)
```

```
RPi.GPIO.setup(R, RPi.GPIO.OUT)
RPi.GPIO.setup(G, RPi.GPIO.OUT)
RPi.GPIO.setup(B, RPi.GPIO.OUT)
```

```
pwmR = RPi.GPIO.PWM(R, 70)
pwmG = RPi.GPIO.PWM(G, 70)
pwmB = RPi.GPIO.PWM(B, 70)
```

```
pwmR.start(0)
pwmG.start(0)
pwmB.start(0)
```

```
try:
```

```
    t = 0.4
```

```
while True:
    # 红色灯全亮，蓝灯，绿灯全暗（红色）
    pwmR.ChangeDutyCycle(100)
    pwmG.ChangeDutyCycle(0)
    pwmB.ChangeDutyCycle(0)
    time.sleep(t)

    # 绿色灯全亮，红灯，蓝灯全暗（绿色）
    pwmR.ChangeDutyCycle(0)
    pwmG.ChangeDutyCycle(100)
    pwmB.ChangeDutyCycle(0)
    time.sleep(t)

    # 蓝色灯全亮，红灯，绿灯全暗（蓝色）
    pwmR.ChangeDutyCycle(0)
    pwmG.ChangeDutyCycle(0)
    pwmB.ChangeDutyCycle(100)
    time.sleep(t)

    # 红灯，绿灯全亮，蓝灯全暗（黄色）
    pwmR.ChangeDutyCycle(100)
    pwmG.ChangeDutyCycle(100)
    pwmB.ChangeDutyCycle(0)
    time.sleep(t)

    # 红灯，蓝灯全亮，绿灯全暗（洋红色）
    pwmR.ChangeDutyCycle(100)
    pwmG.ChangeDutyCycle(0)
    pwmB.ChangeDutyCycle(100)
    time.sleep(t)

    # 绿灯，蓝灯全亮，红灯全暗（青色）
    pwmR.ChangeDutyCycle(0)
    pwmG.ChangeDutyCycle(100)
    pwmB.ChangeDutyCycle(100)
    time.sleep(t)

    # 红灯，绿灯，蓝灯全亮（白色）
    pwmR.ChangeDutyCycle(100)
    pwmG.ChangeDutyCycle(100)
    pwmB.ChangeDutyCycle(100)
    time.sleep(t)

    # 调整红绿蓝LED的各个颜色的亮度组合出各种颜色
    for r in range(0, 101, 20):
        pwmR.ChangeDutyCycle(r)
        for g in range(0, 101, 20):
            pwmG.ChangeDutyCycle(g)
            for b in range(0, 101, 20):
                pwmB.ChangeDutyCycle(b)
                time.sleep(0.01)

except KeyboardInterrupt:
    pass
```

```
pwmR.stop()  
pwmG.stop()  
pwmB.stop()  
  
RPi.GPIO.cleanup()
```

效果

