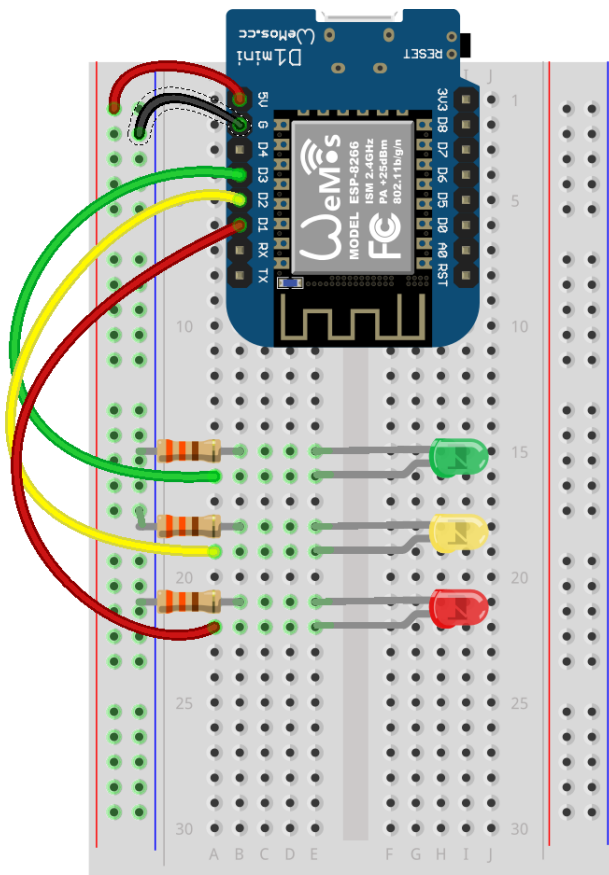
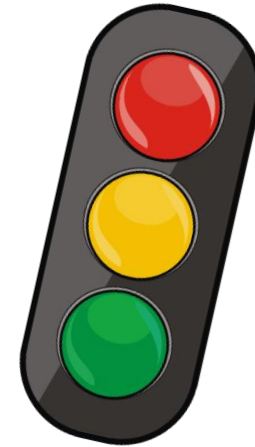
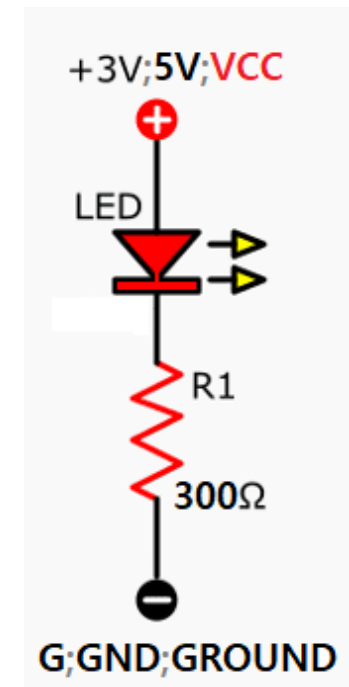


# lights

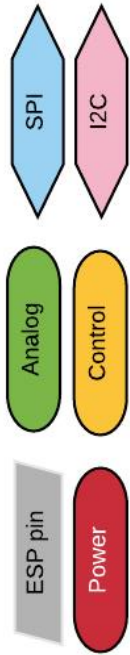
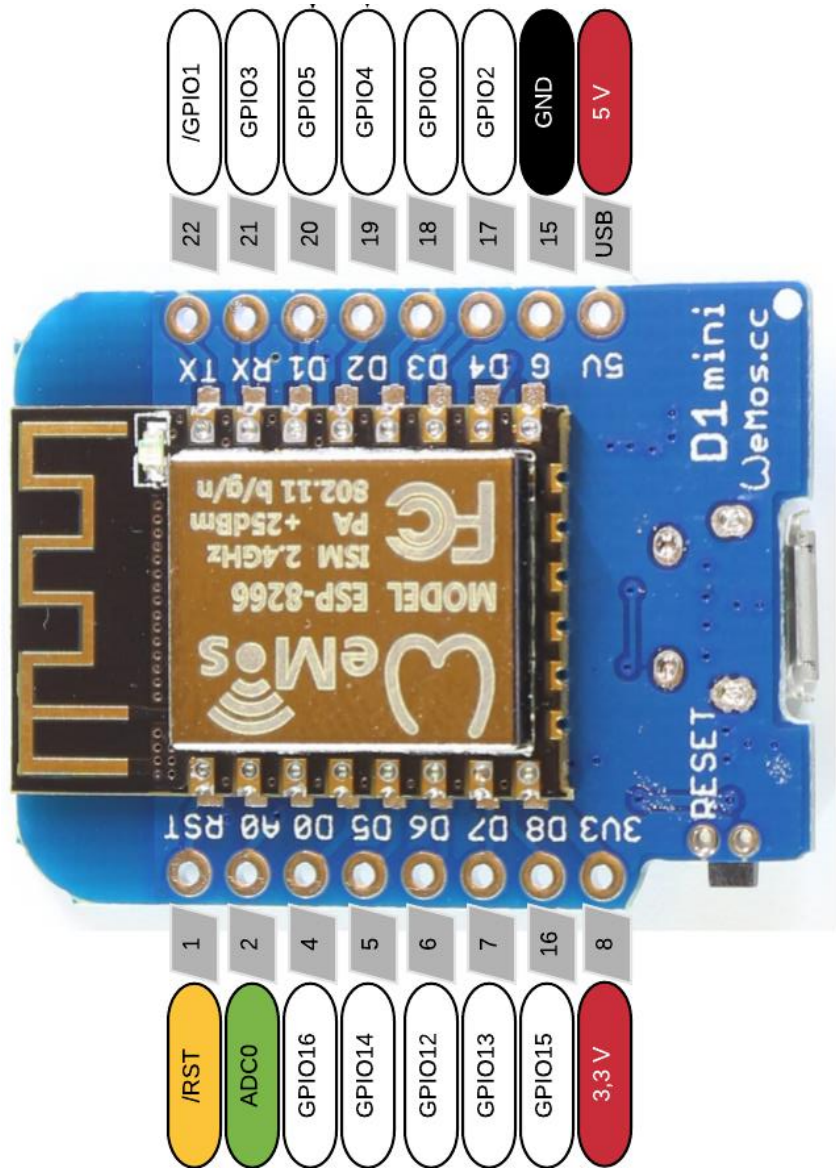


fritzing

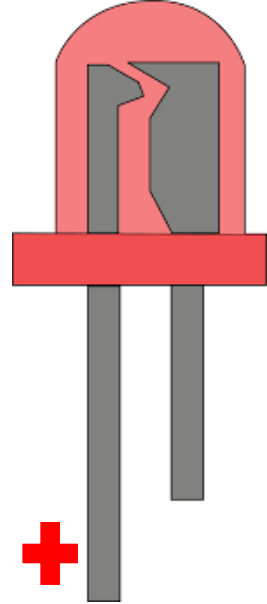
```
1 from machine import Pin
2 from time import sleep
3
4 D4 = 2 # not used
5 D3 = 0 # to connect to the green led
6 D2 = 4 # to connect to the yellow led
7 D1 = 5 # to connect to the red led
8
9 led_g = Pin( D3, Pin.OUT )
10 led_y = Pin( D2, Pin.OUT )
11 led_r = Pin( D1, Pin.OUT )
12
13 loops = 3
14 while loops > 0:
15     led_g.on()
16     sleep( 1 )
17     led_g.off()
18     led_y.on()
19     sleep( 1 )
20     led_y.off()
21     led_r.on()
22     sleep( 1 )
23     led_r.off()
24     loops = loops - 1 # comment this line to run forever
25
```



WEMOS D1 MINI – PINOUT



LED



RESISTOR



How to Read Resistor Color Codes

Diagram illustrating how to read resistor color codes. It shows a 6-Band resistor with the following values:

- 1st Digit: 2
- 2nd Digit: 7
- 3rd Digit: 4
- Multiplier:  $10^2$
- Temperature Coefficient:  $250 \text{ ppm/K}$
- Tolerance:  $\pm 2\%$

The resulting value is  $274 \Omega \pm 2\%, 250 \text{ ppm/K}$ .

Color	1st Digit	2nd Digit	3rd Digit	Multiplier	Tolerance	Temperature Coefficient
Black	0	0	0	1 $\Omega$		250 ppm/K
Brown	1	0	1	10 $\Omega$	$\pm 1\%$	100 ppm/K
Red	2	0	2	100 $\Omega$	$\pm 2\%$	50 ppm/K
Orange	3	0	3	1k $\Omega$		15 ppm/K
Yellow	4	0	4	10k $\Omega$		25 ppm/K
Green	5	0	5	100k $\Omega$	$\pm 0.5\%$	20 ppm/K
Blue	6	0	6	1M $\Omega$	$\pm 0.25\%$	10 ppm/K
Violet	7	0	7		$\pm 0.1\%$	5 ppm/K
Grey	8	0	8			1 ppm/K
White	9	0	9			
Gold				0.1 $\Omega$	$\pm 5\%$	
Silver				0.01 $\Omega$	$\pm 10\%$	

Examples of 4-Band and 5-Band resistors:

- 4-Band:  $12 \times 10^5 \pm 5\% = 1,200 \text{ k}\Omega \pm 5\%$
- 5-Band:  $100 \times 10^5 \pm 1\% = 10,000 \Omega \pm 1\%$