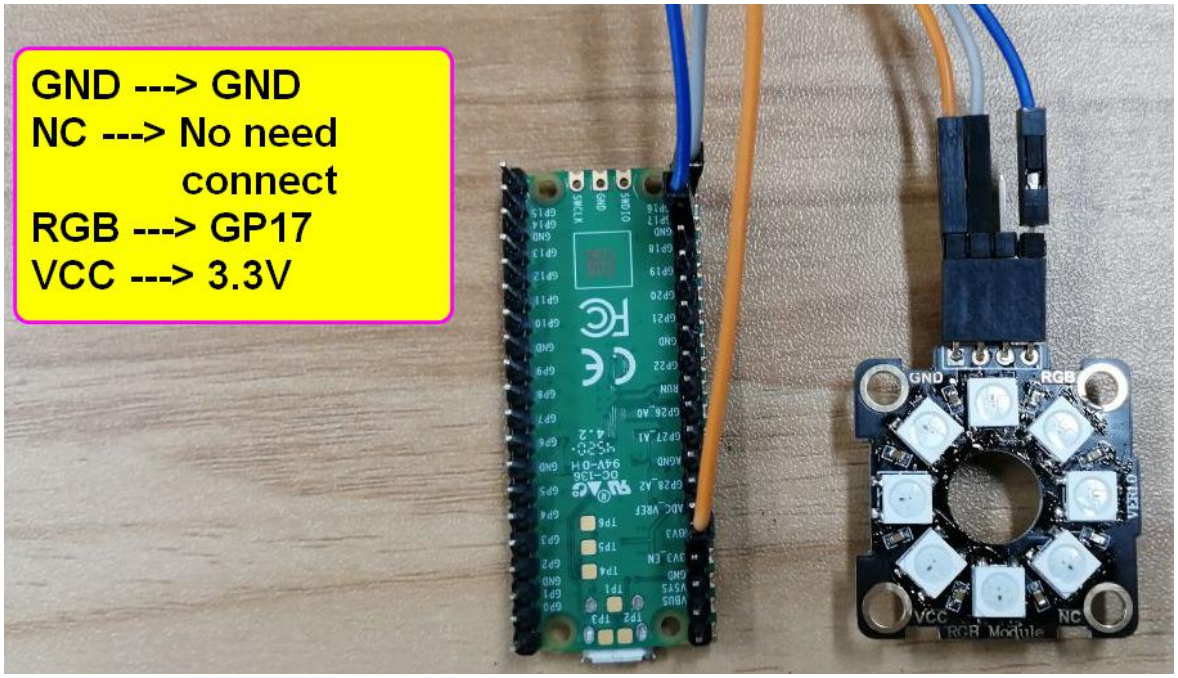
Light up a RGB

1. Learning target

In this course, we will learn how to use Raspberry Pi Pico and RGB light module to achieve light up a RGB.

2. Preparation

Connect the module to Raspberry Pi Pico board by expansion board, as shown below.



3. About code

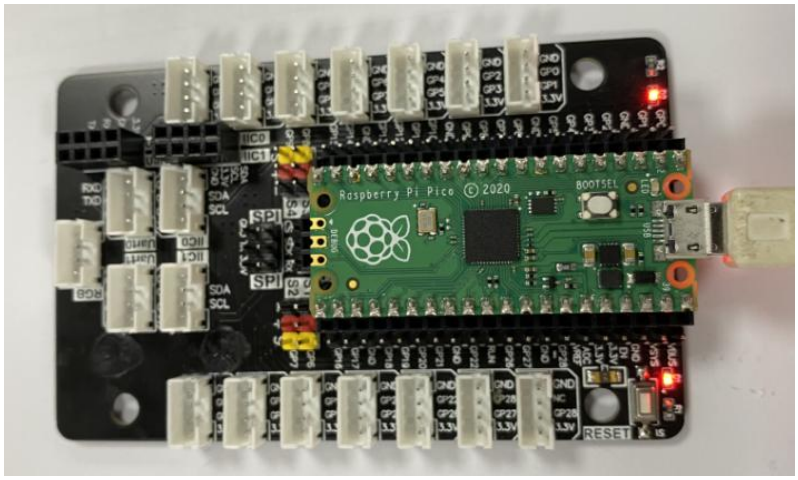
File Edit View Run Tools Help

One_light.py

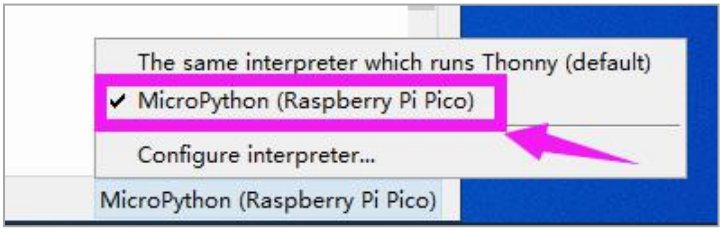
```
import time
import ws2812b
import random

numpix = 8  # Number of NeoPixels
# Pin where NeoPixels are connected
strip = ws2812b.ws2812b(numpix, 0,17)

strip.fill(0,0,0)

while True:
    strip.show()
    pix = 0
    #pixel_num, red, green, blue
    strip.set_pixel(pix, 255, 0, 0)
    time.sleep(0.005)
```

4. Import library file

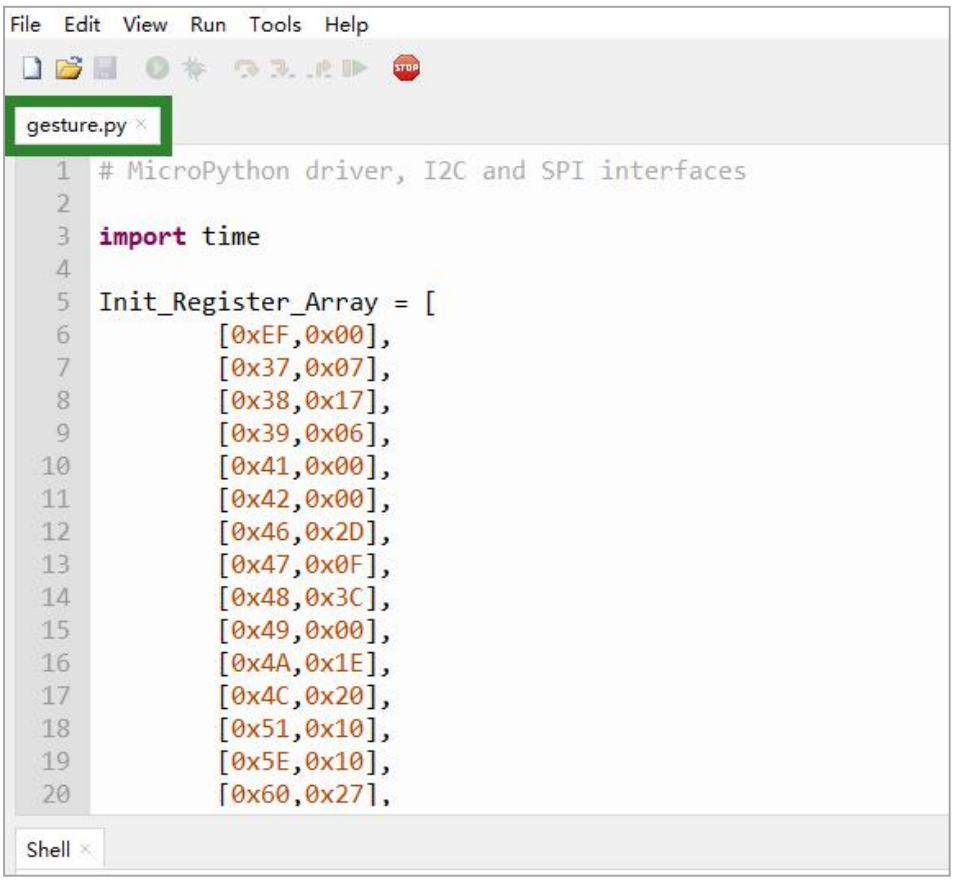
4.1 Connect Pico to your computer, as shown below.



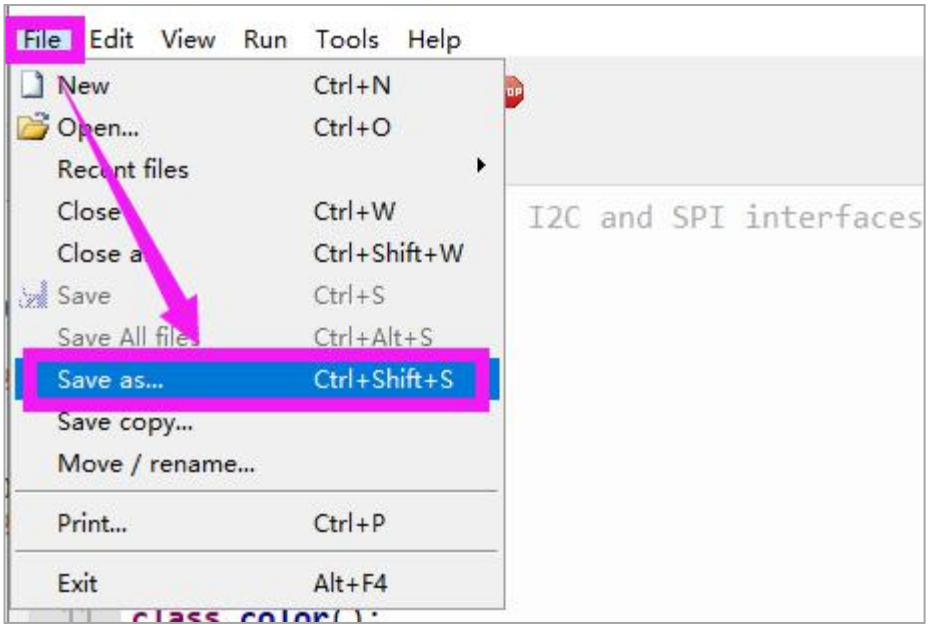
4.2 Open the Thonny software, click the lower right corner to connect the Pico board.

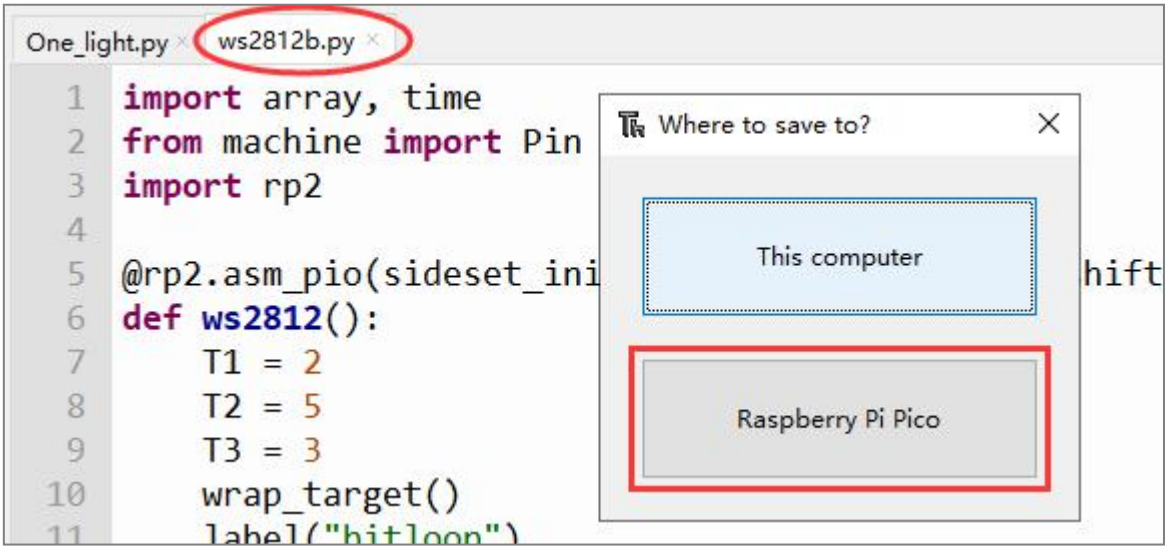


4.3 Open the gesture.py in library folder by Thonny software.

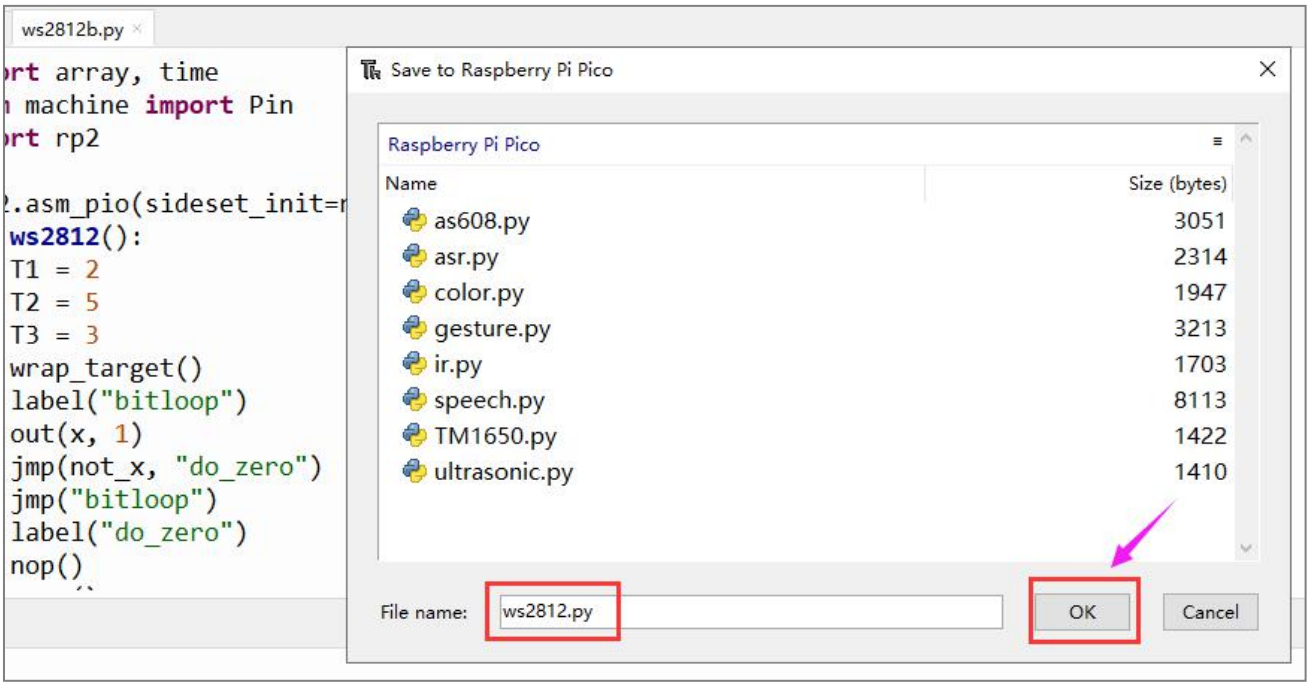


4.4 Save as this .py library file into Pico.



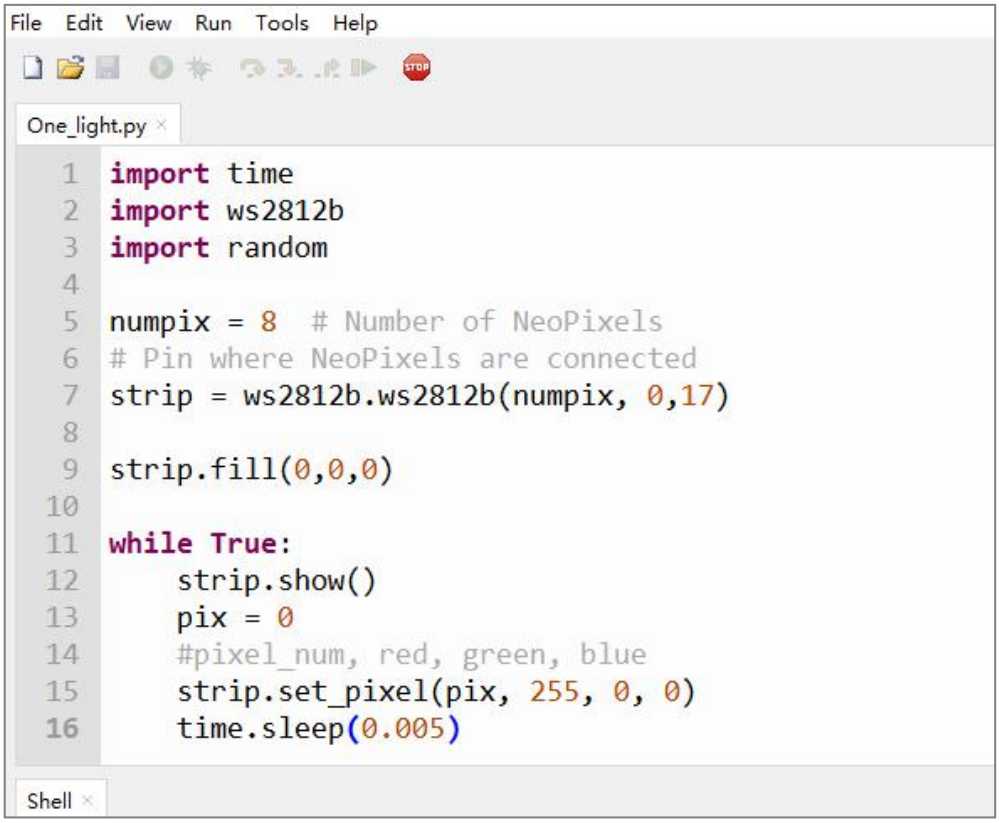


4.5 Enter the same file name as the library file. Then, click “OK”.



5. Compiling and downloading code

5.1 We can open the One_light.py file by Thonny software.



5.2 In Thonny menu bar, we need to click run button to run this program.
"%Run -c $EDITOR_CONTENT" will be displayed. As shown below.

6. Phenomenon

After the program is run successfully. The first light on the module become red.