Pico Primer Kit Usage for New Learners

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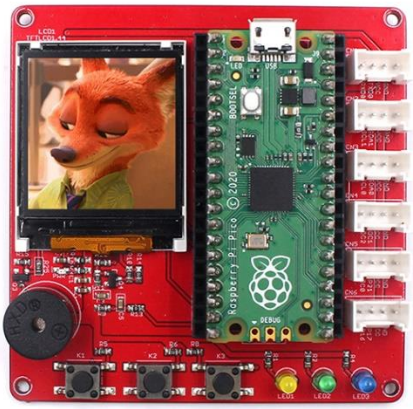
Version：V1.0

Statement

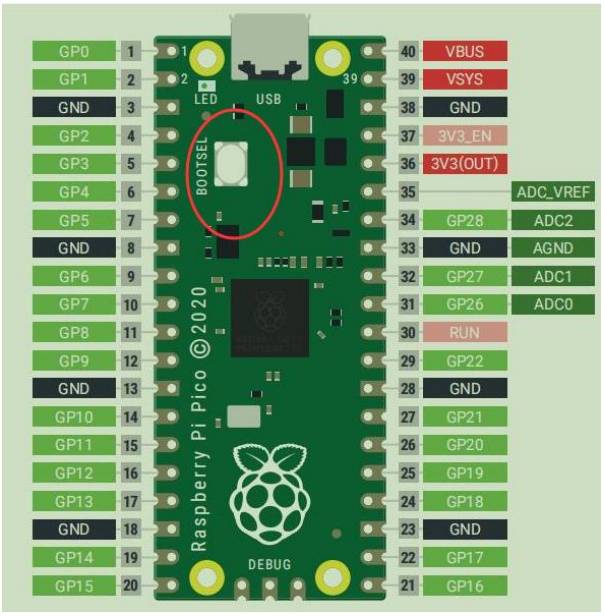
Makerfabs Pico primer kit intends to help starters to learn Pico with Micropython, it include original new Raspberry Pi Pico, without any pre-programming. This file explain how to program the PICO, and run the first demo.

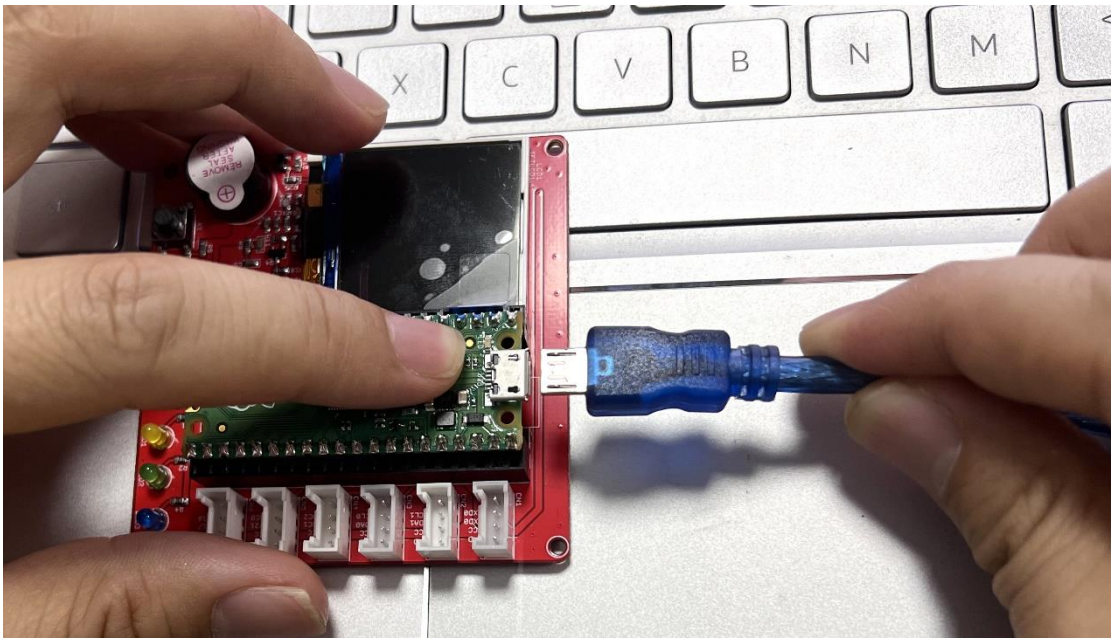
Please install the Pico to the kit base board, note that the USB connector position.



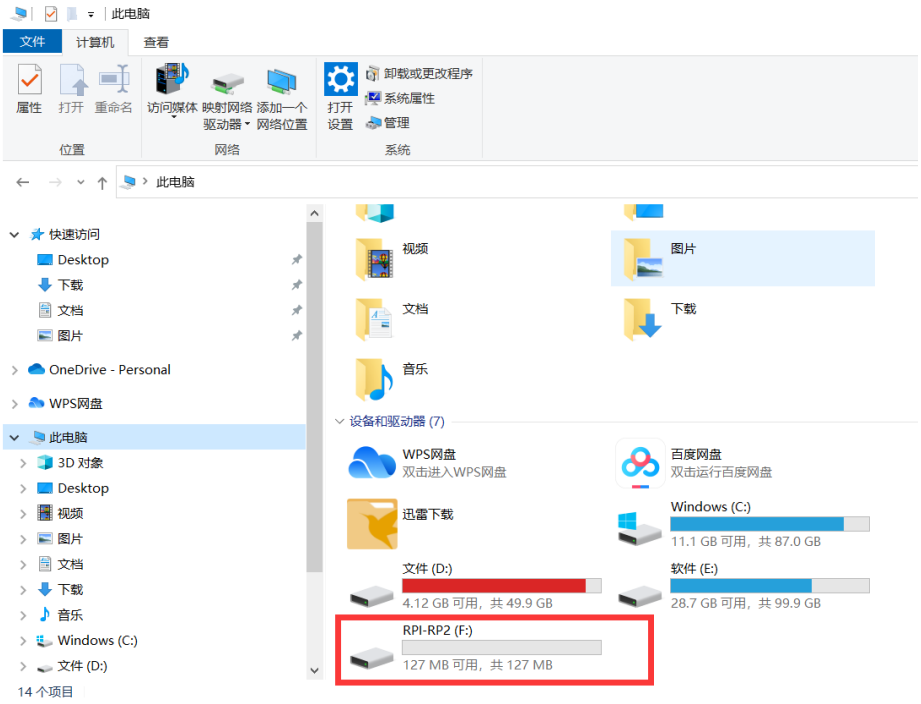
Install MicroPython

1. Press& Hold the button **BOOTSEL** on Pico, and power up Pico with Micro USB cable to PC:

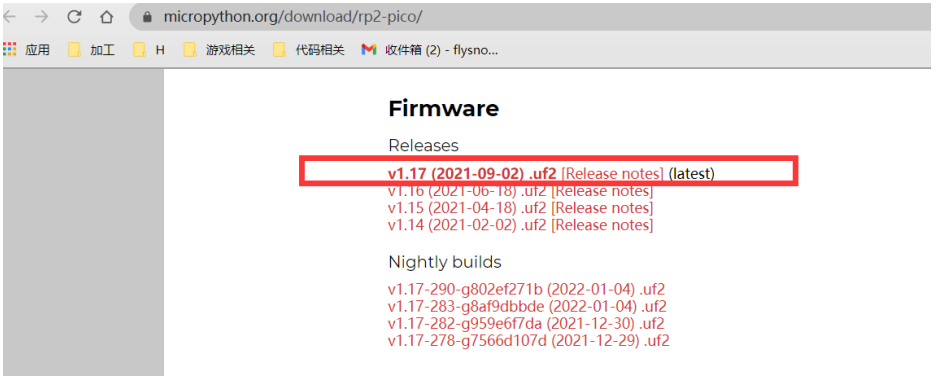




2. Open PC, there will be a new disk called **RPI-RP2**



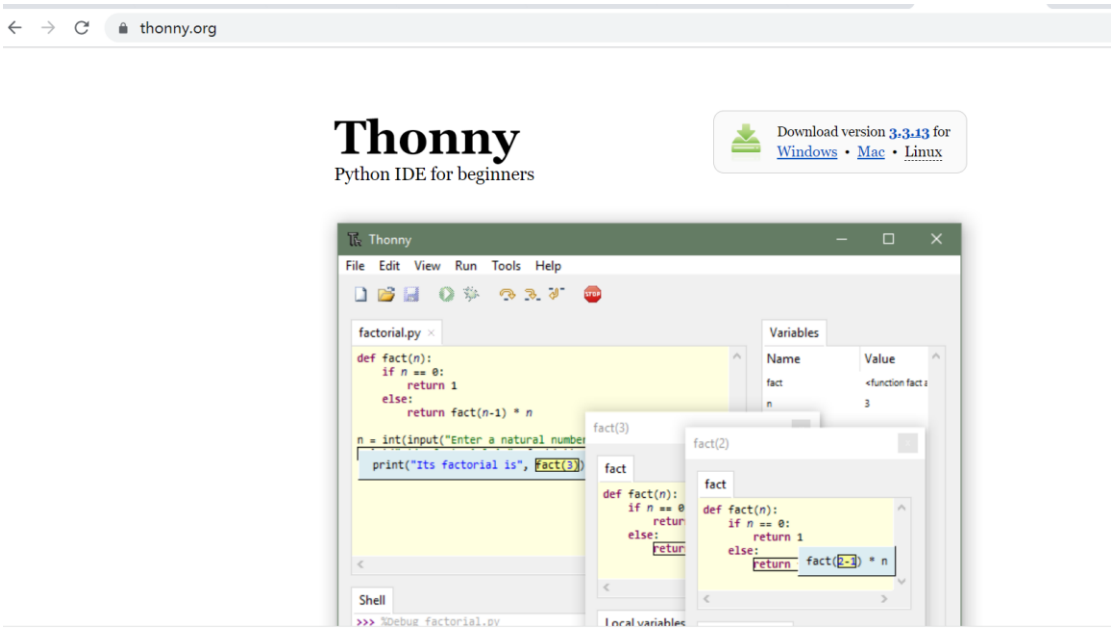
3. Download the latest MicroPython firmware uf2 at: https://micropython.org/download/rp2-pico/, and install it to the disk **RPI-RP2.**



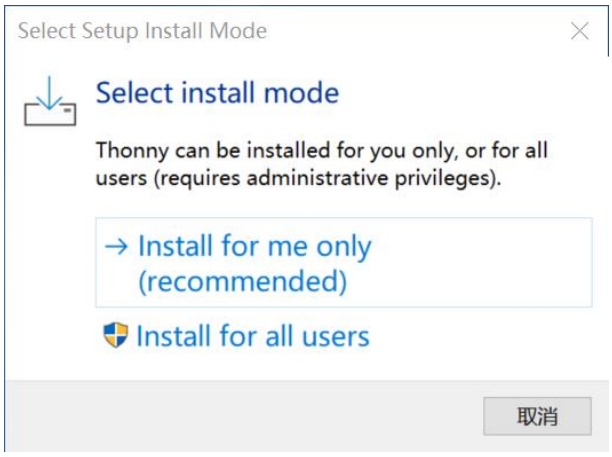
4. Then Pico will restart, and the disk RPI-RPS2 disappear, there a new hardware called： **Board in FS mode**

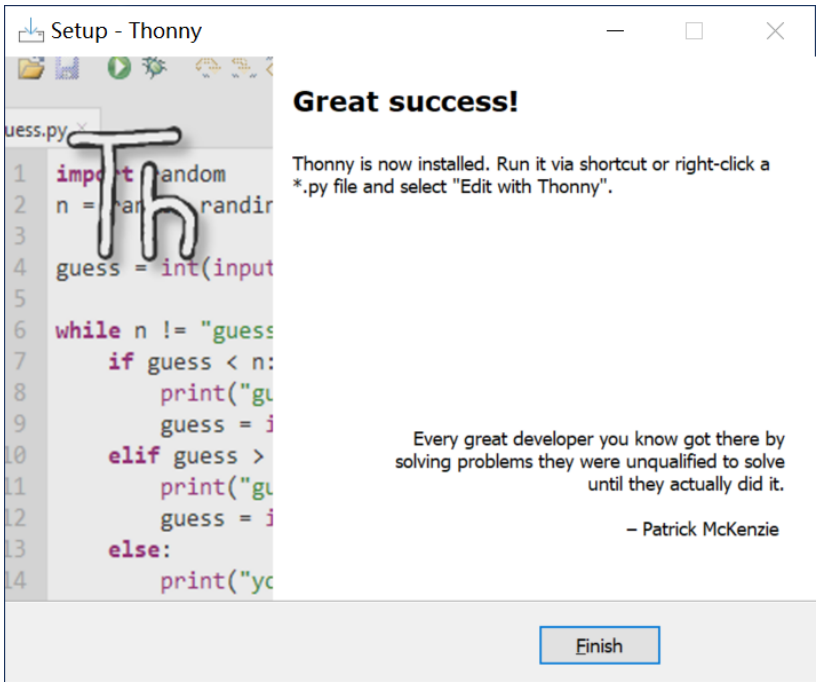
Install Thonny

- Download **Thonny** at: https://thonny.org/, select the operating system you are using.(Window/Mac/Linux)

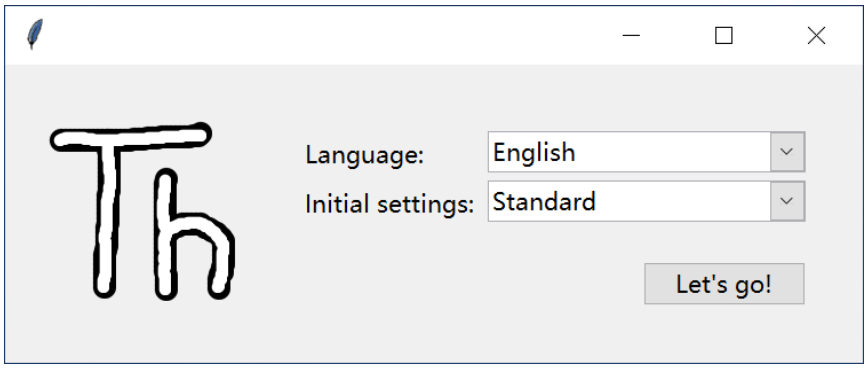


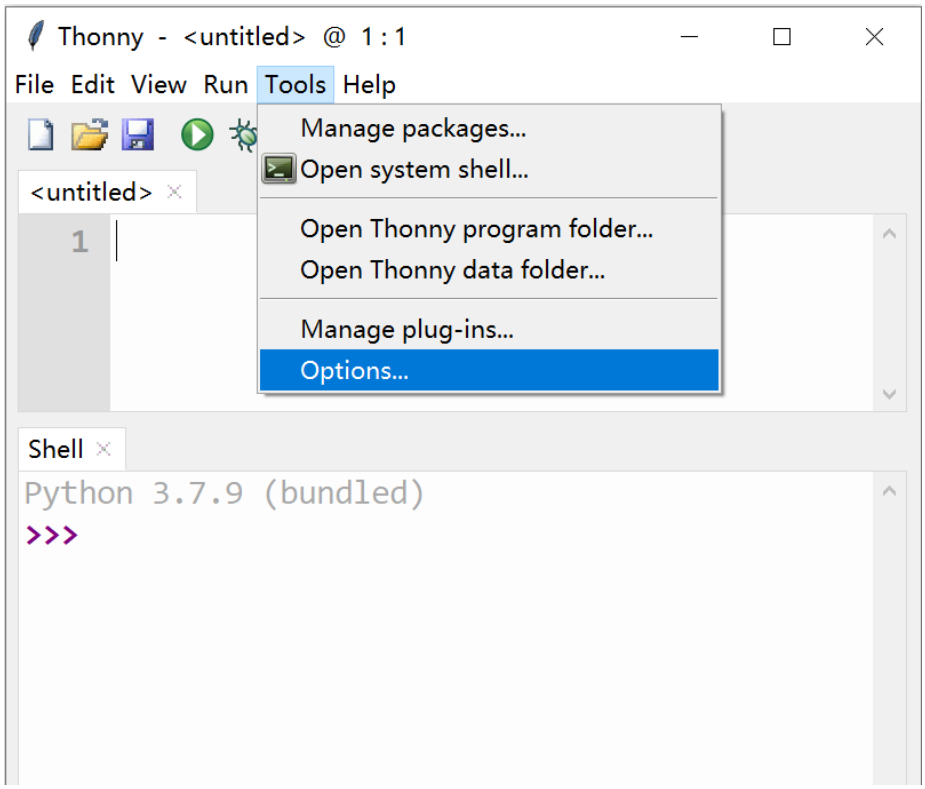
- Install **Thonny**:



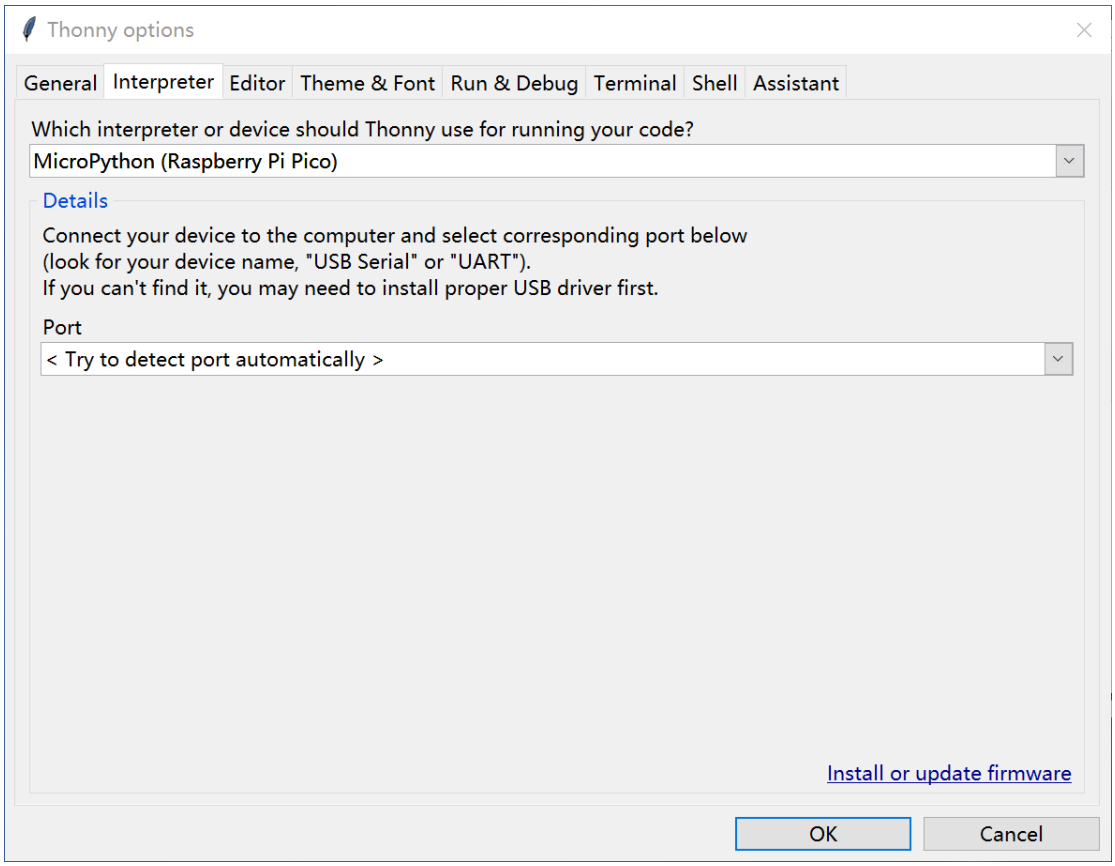


3. Open the **Thonny** IDE(you may need to select the language the first time you open the IDE), select the **Tools->Options**:

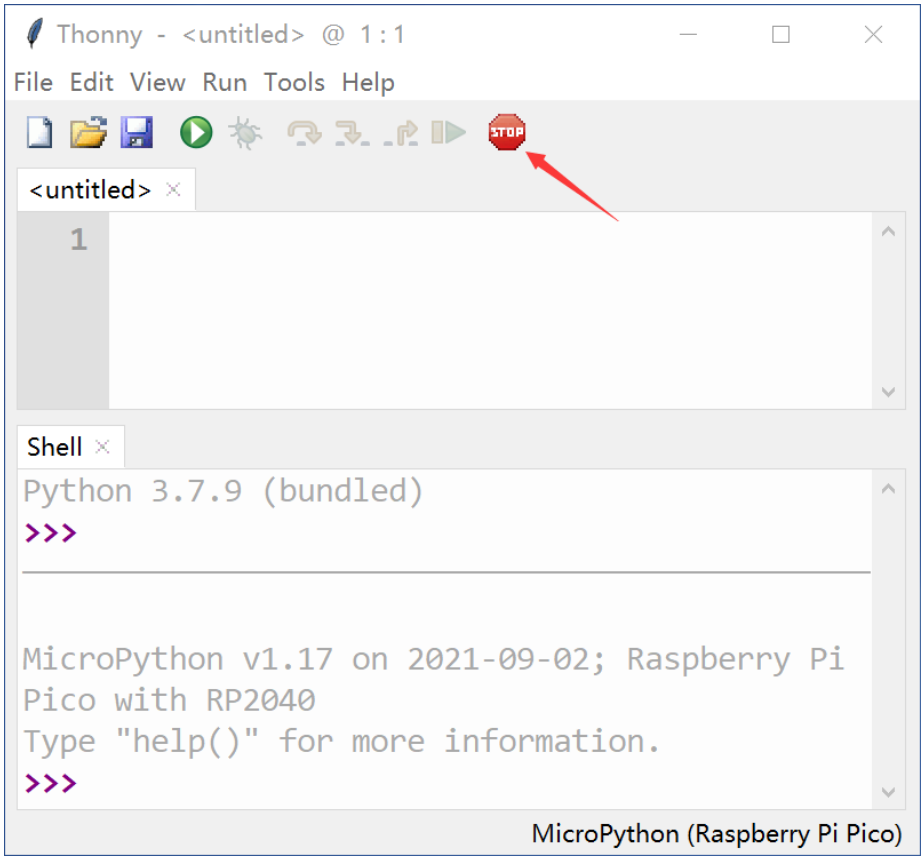




4. In the interpreter sheet, select **MicroPython(Raspberry Pi Pico)**, and select the option **Try to detect port automatically,** and select **OK**



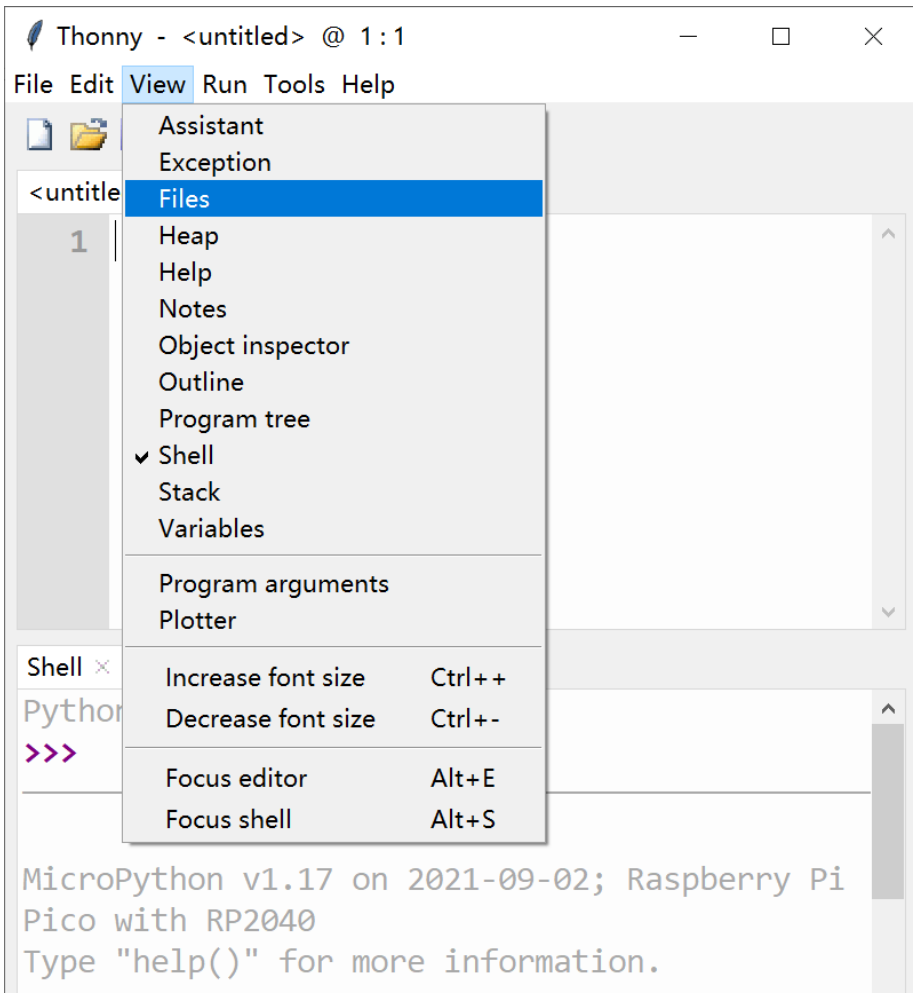
5. Click the button **stop**, the Shell will show the MicrPython version, and shows that the MicroPython are installed successfully.

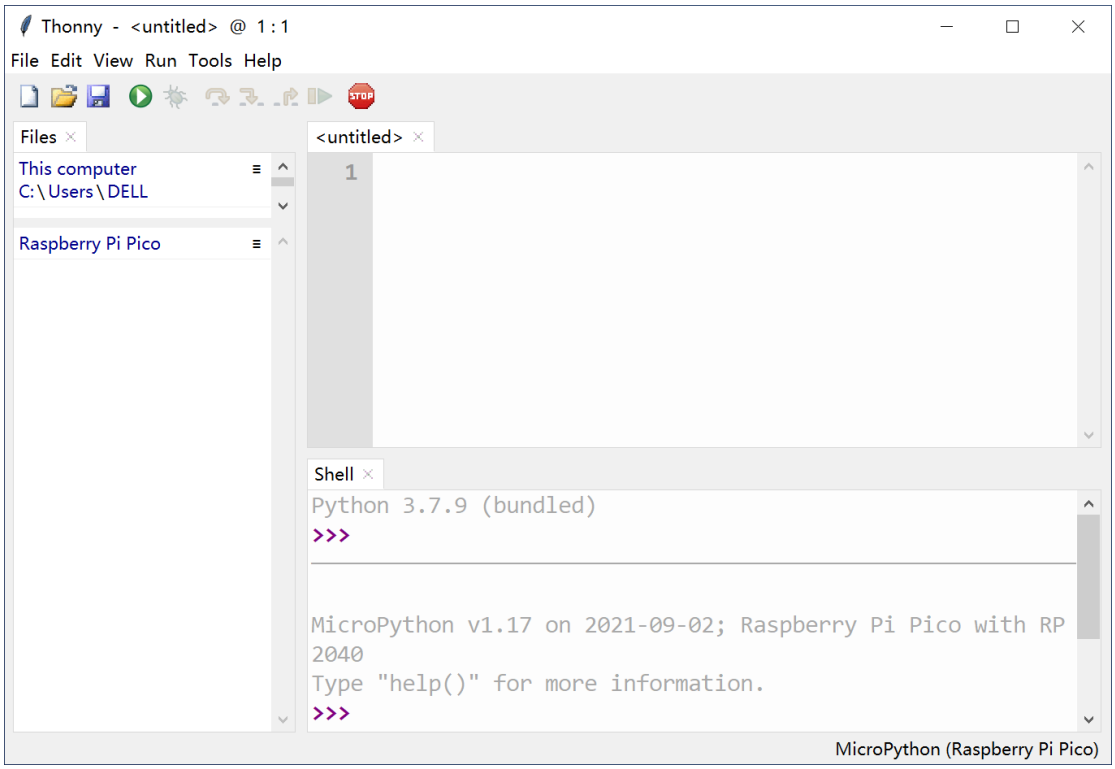


Makerfabs Code

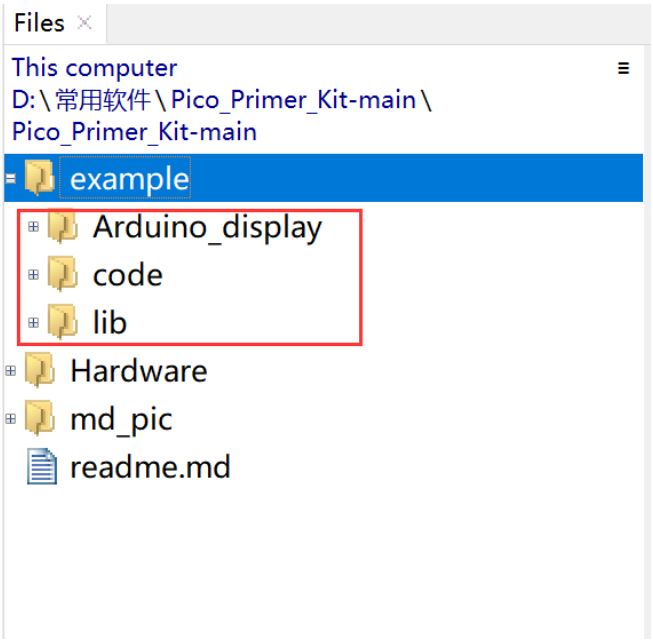
Download Makerfabs demo code at: https://github.com/Makerfabs/Pico_Primer_Kit, to your PC, and then download the code to Pico to run. **Note that if you are new learners, please act strictly as the guide.**

1. Open the Thonny IDE. And select the **View->Files,** to make all the files in PC and Pico display at the left side of IDE

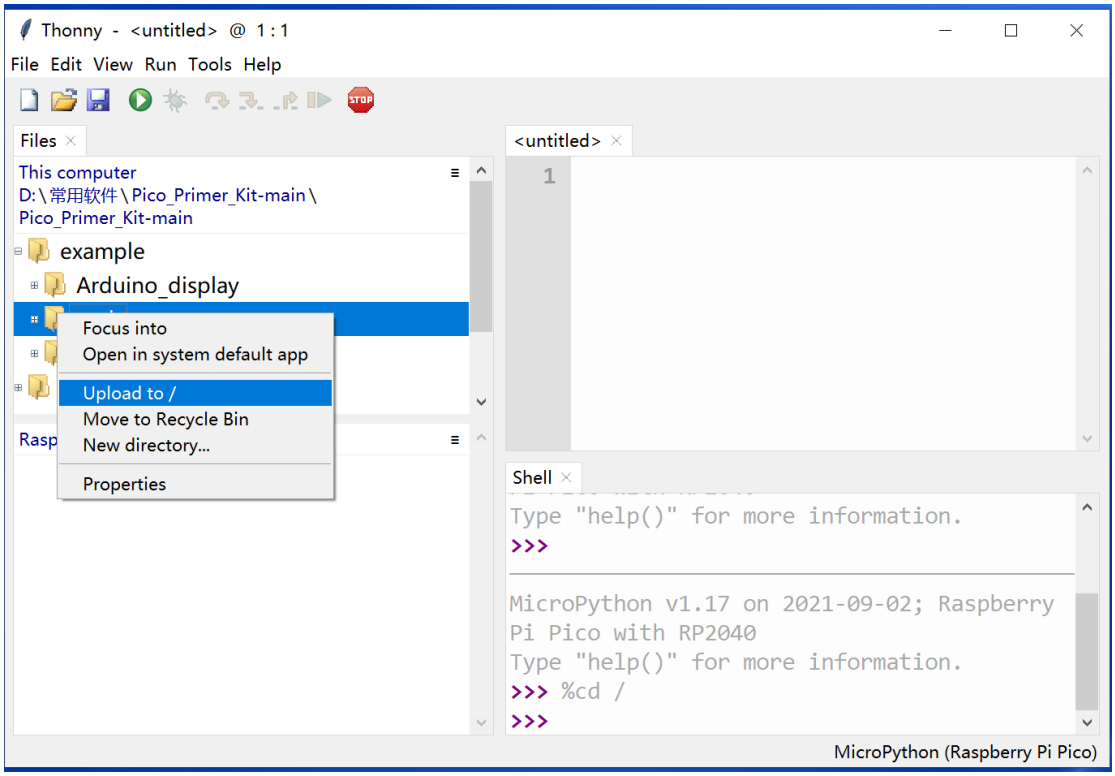




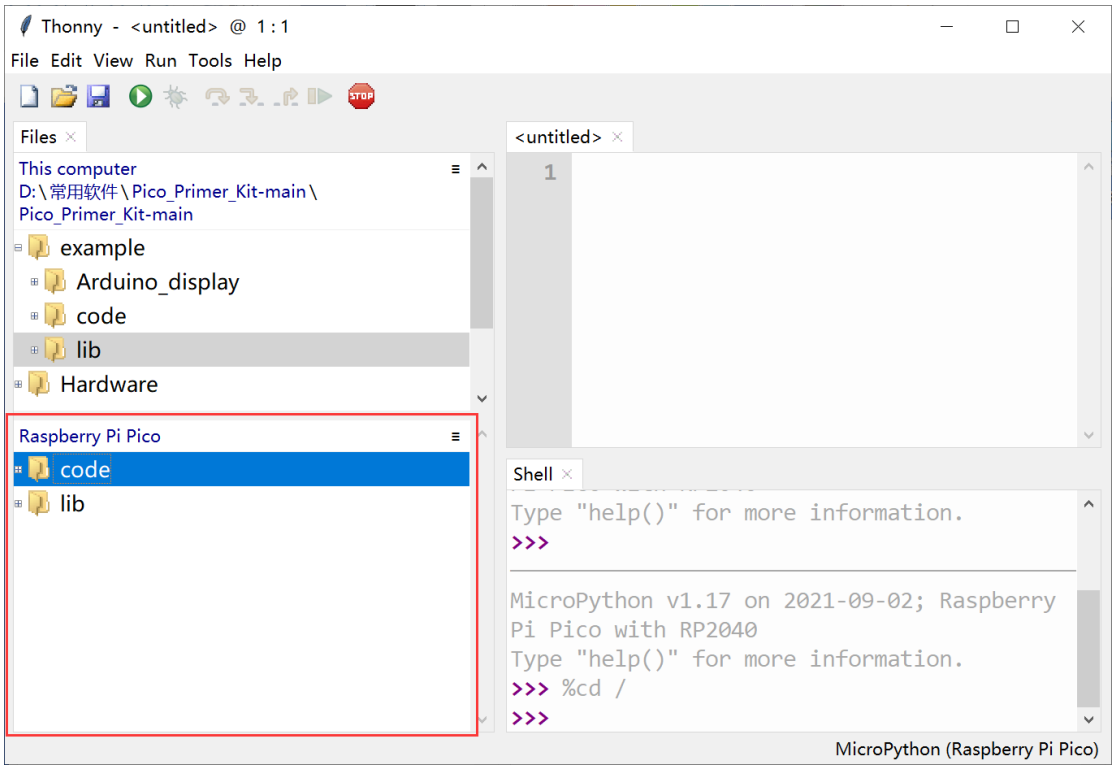
2. Brower the files, and enter the files downloaded from Makerfabs GitHub: **...\Pico_Primer_Kit-main\Pico_Primer_Kit-main\example**, you will see 3 folders there: **Arduino_display**, **Code** and **lib**:

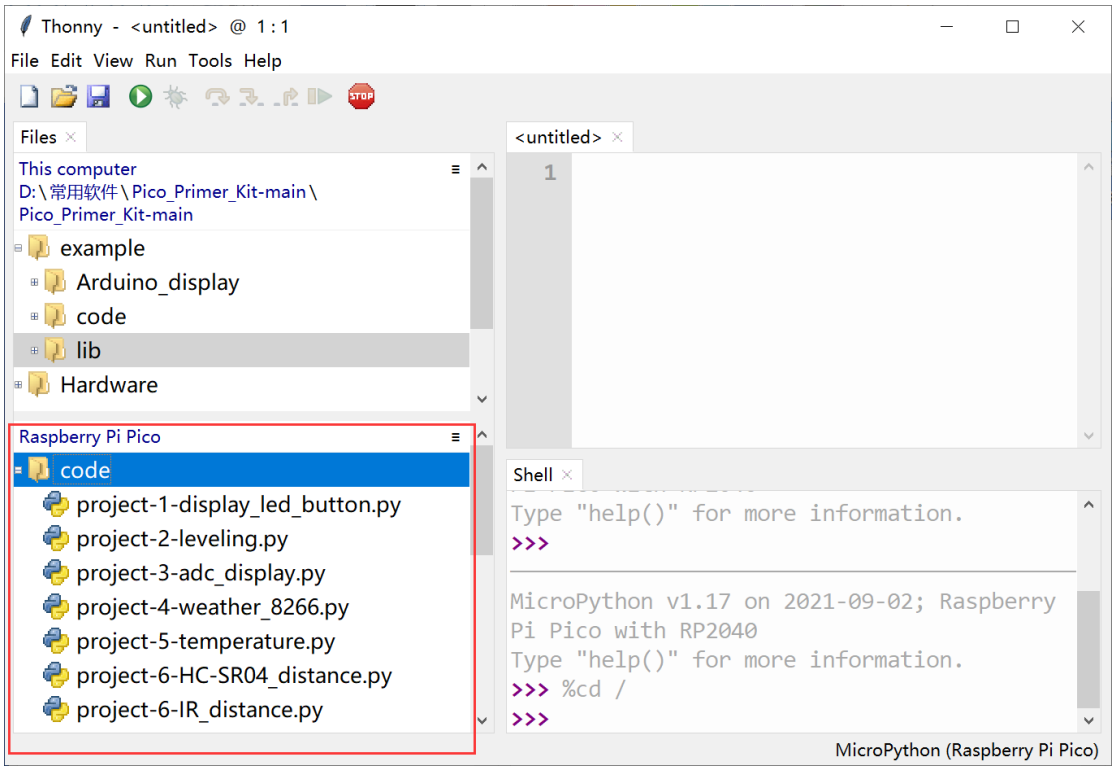


3. Select the **Code** folder, right click it and select "**Upload to /**", that all the files in **Code** folder will be download to Pico:



4.Download the files in **lib** folder to Pico, with the same way, by selecting "**Upload to /**", then you can check the files in **Code/& Lib** folder in the Raspberry Pi Pico :


Thonny - <untitled> @ 1 : 1
File Edit View Run Tools Help
Files
This computer
D:\常用软件\Pico_Primer_Kit-main\
Pico_Primer_Kit-main
example
Arduino_display
code
lib
Hardware
Raspberry Pi Pico
code
lib
<untitled>
1
Shell
Type "help()" for more information.
>>>
MicroPython v1.17 on 2021-09-02; Raspberry Pi Pico with RP2040
Type "help()" for more information.
>>> %cd /
>>>
MicroPython (Raspberry Pi Pico)


Thonny - <untitled> @ 1 : 1
File Edit View Run Tools Help
Files
This computer
D:\常用软件\Pico_Primer_Kit-main\
Pico_Primer_Kit-main
example
Arduino_display
code
lib
Hardware
Raspberry Pi Pico
code
project-1-display_led_button.py
project-2-leveling.py
project-3-adc_display.py
project-4-weather_8266.py
project-5-temperature.py
project-6-HC-SR04_distance.py
project-6-IR_distance.py
<untitled>
1
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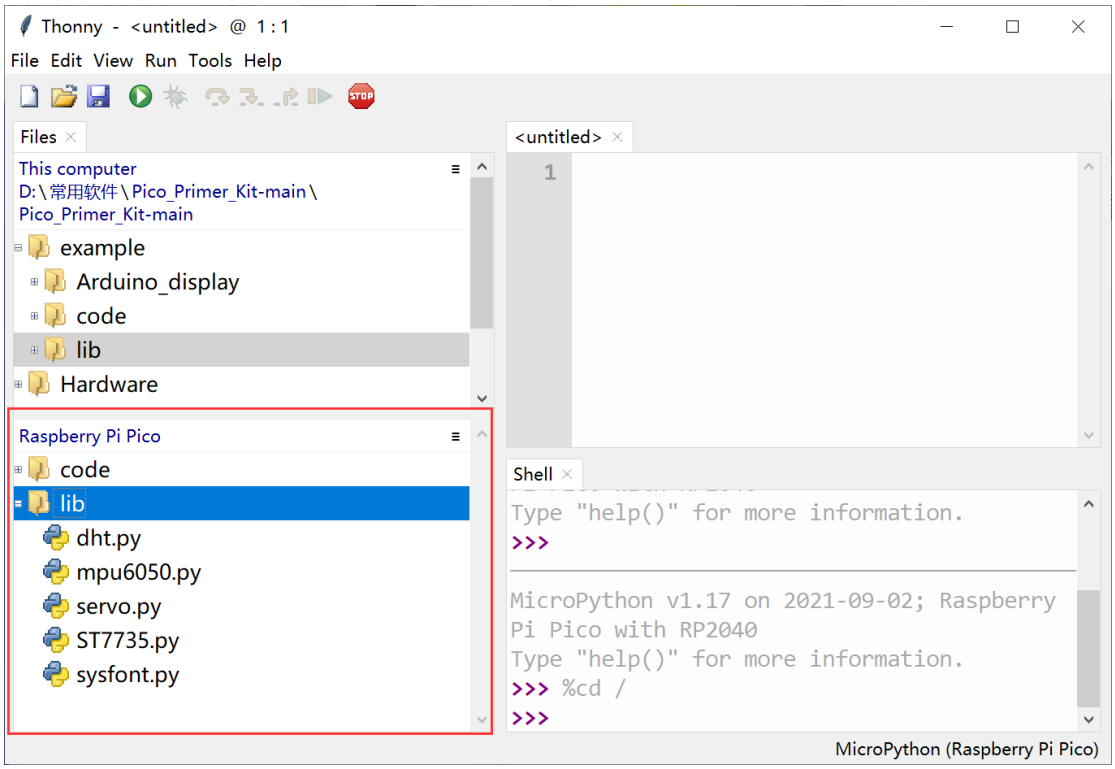
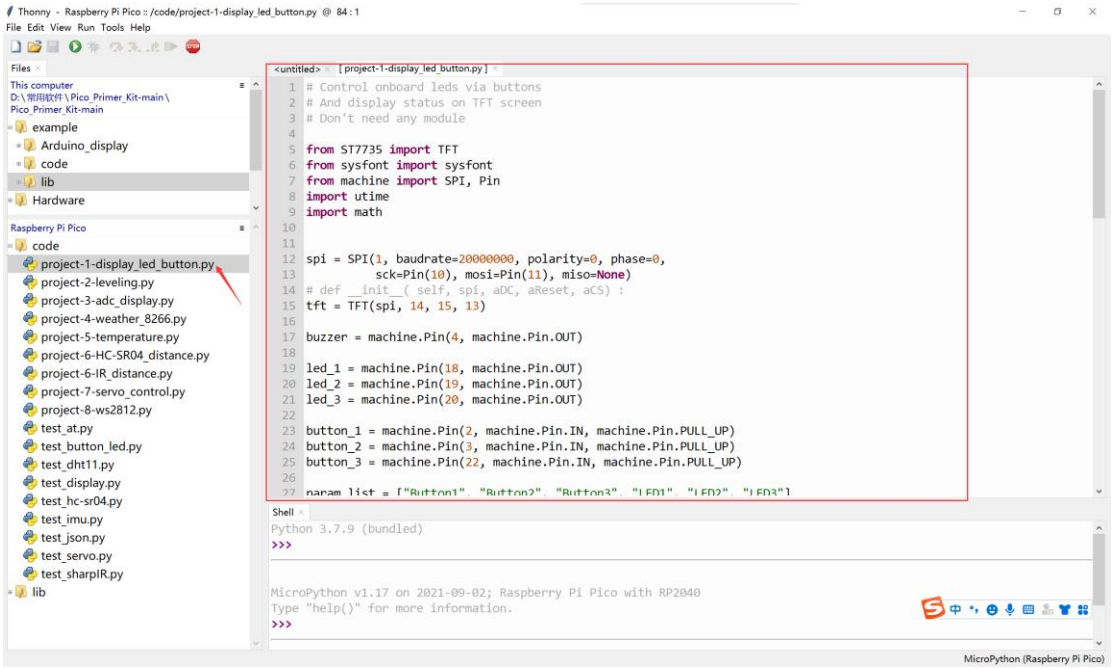
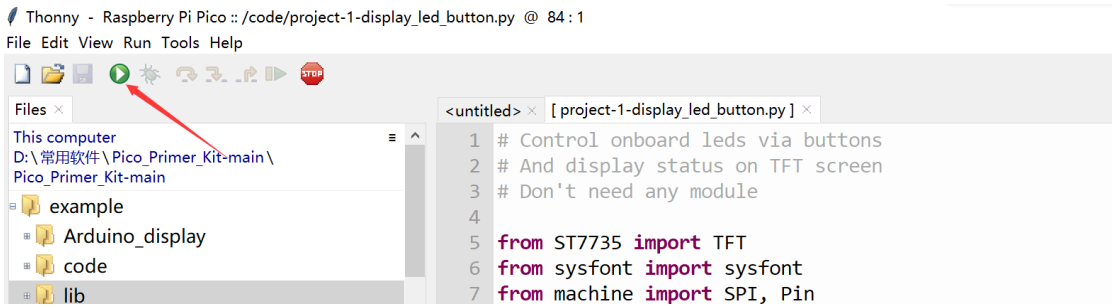
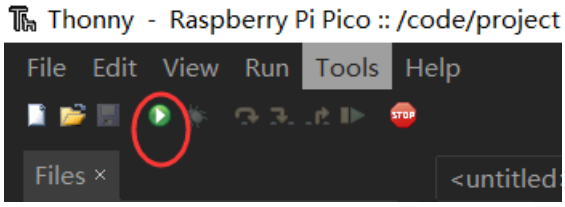


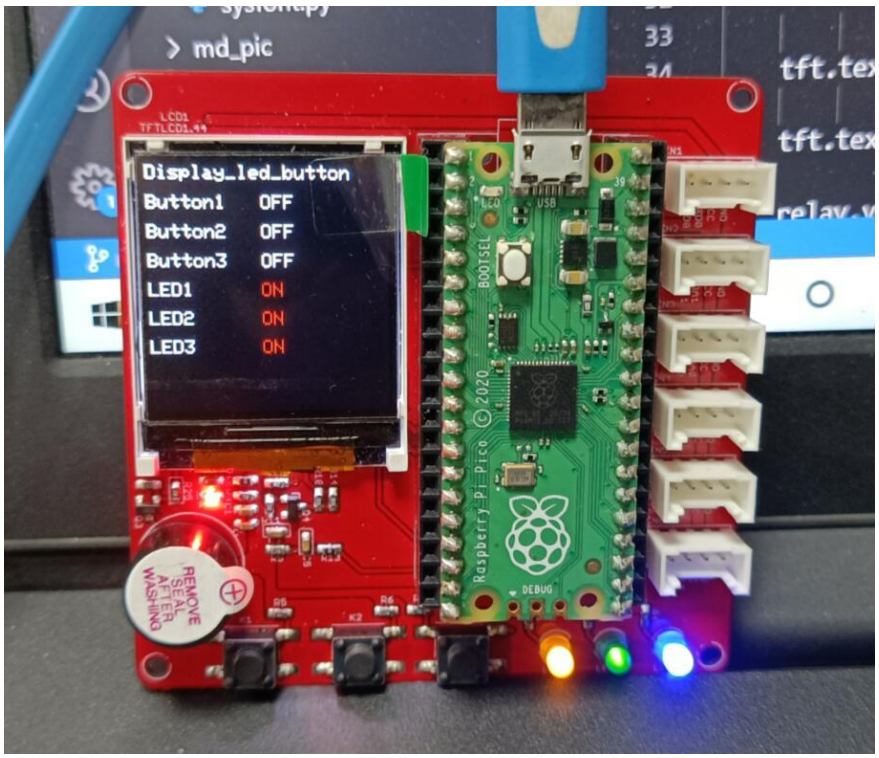
5. Double click the first demo code "**Project-1-display_led_button.py**", the code will display on the right:



6. Click the **Run**, the code will begin to run there, and the display on the base board will work：



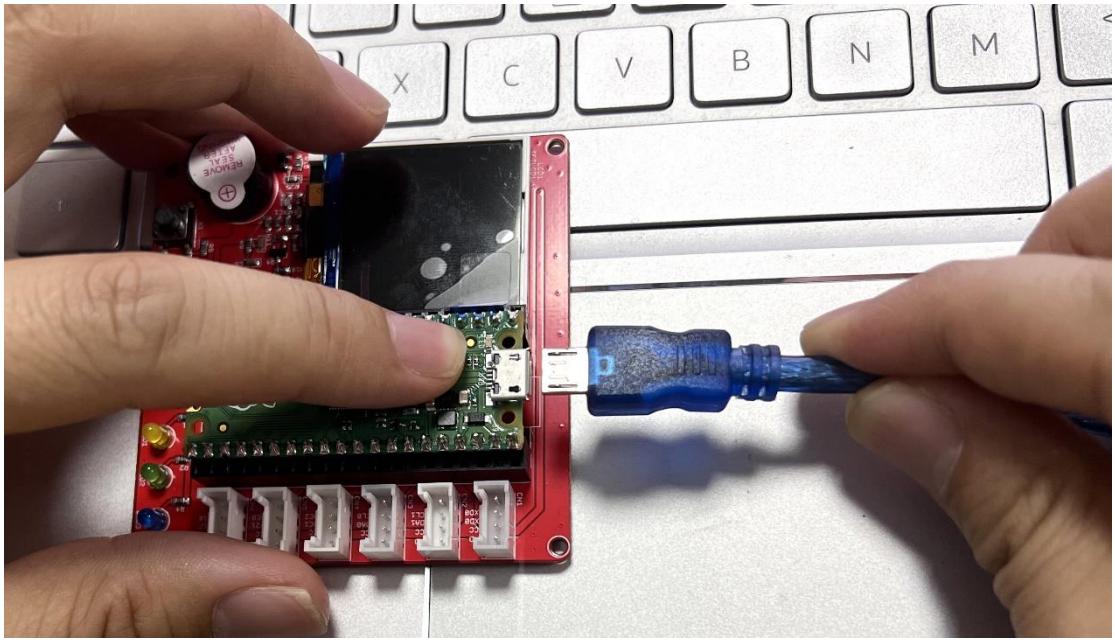




And press the buttons, you will see the LEDs blinking.

By now, the Pico Micropython works, and the first demo code works. Enjoy more applications with other demo and refer to Makerfabs wiki:

https://www.makerfabs.com/wiki/index.php?title=Pico_Primer_Kit



For more info, please check:
https://hackspace.raspberrypi.com/books/micropython-pico