EoRa-S3-x00TB Online Environment Setup Tutorial



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1、Installing Visual Studio Code

1.1 Download Visual Studio Code

The download of Visual Studio Code is prioritized on the official website, download the latest installer file from the vscode website, double click on the downloaded .exe file, and finally install it as per the screenshot below.

- Download website：https://code.visualstudio.com/download

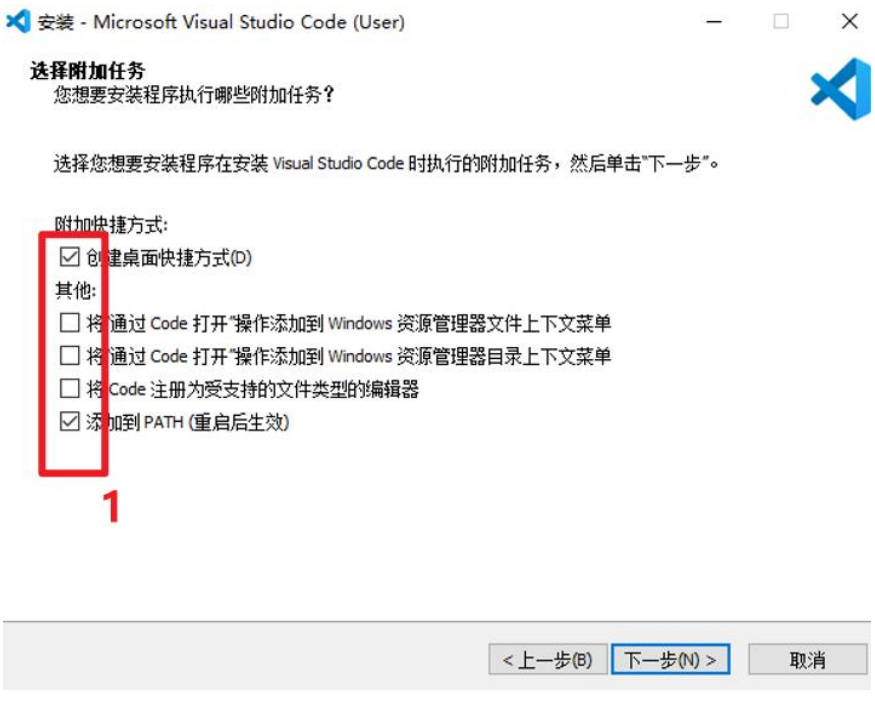


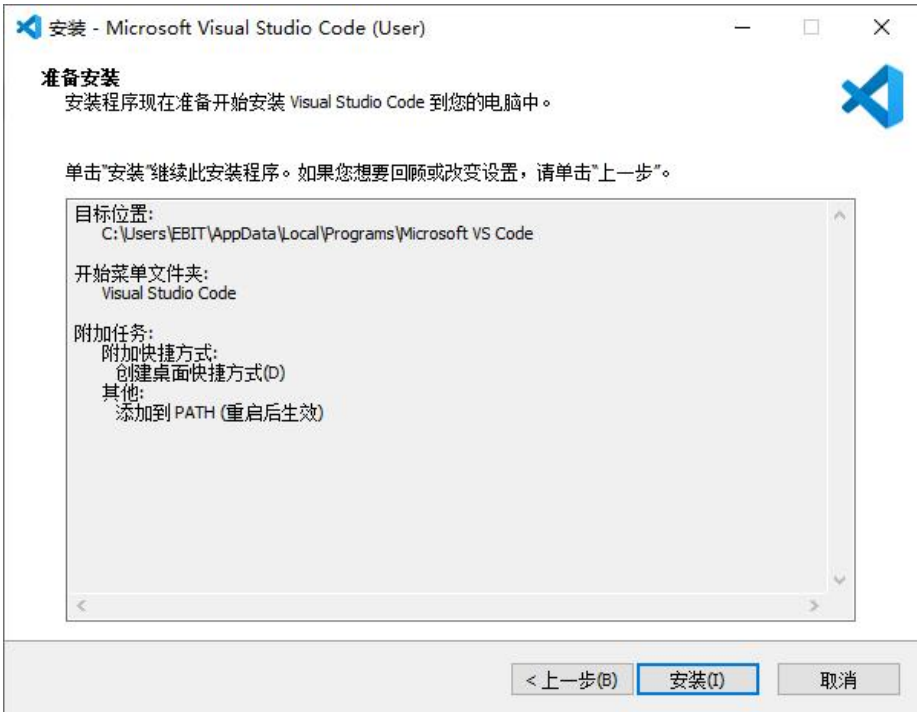
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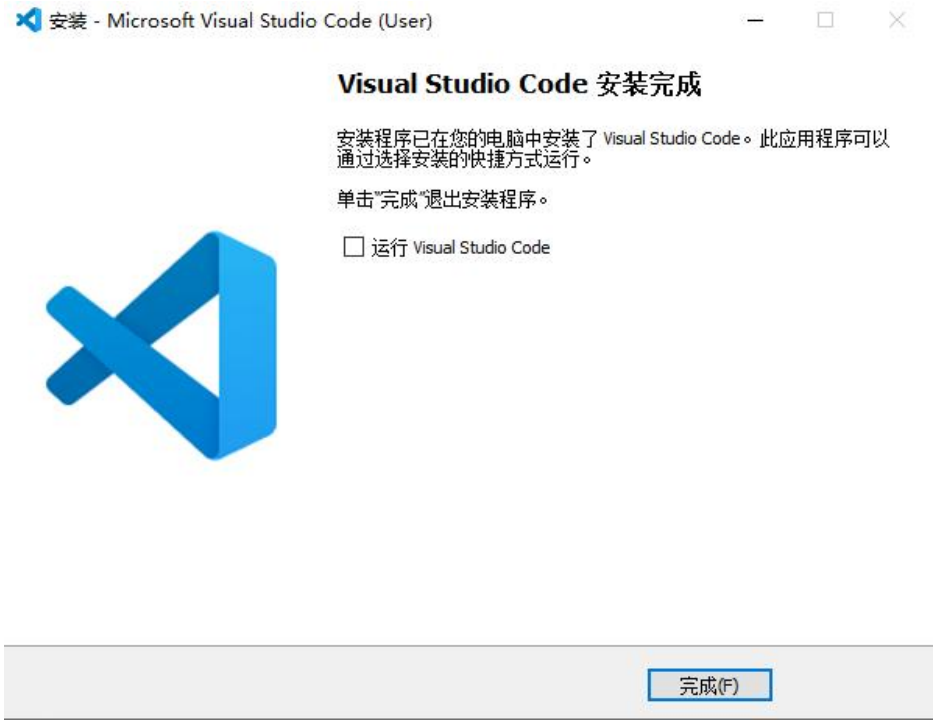
Note: All selections are required as shown in serial number 1 below.

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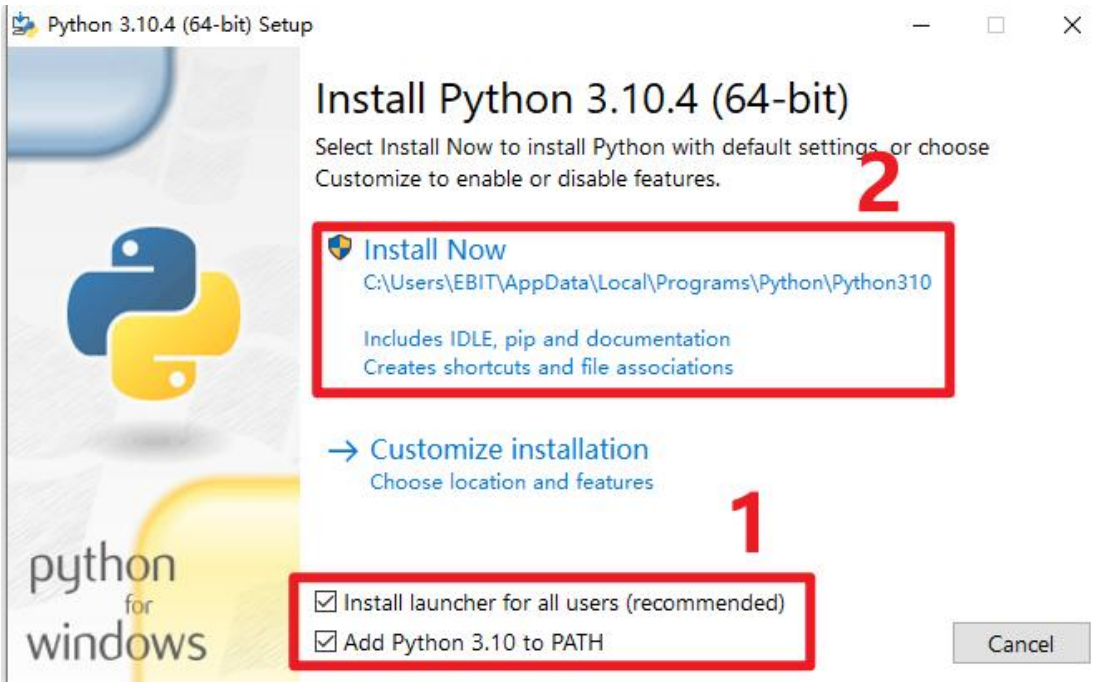
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2、Installing Python

2.1 Download Python

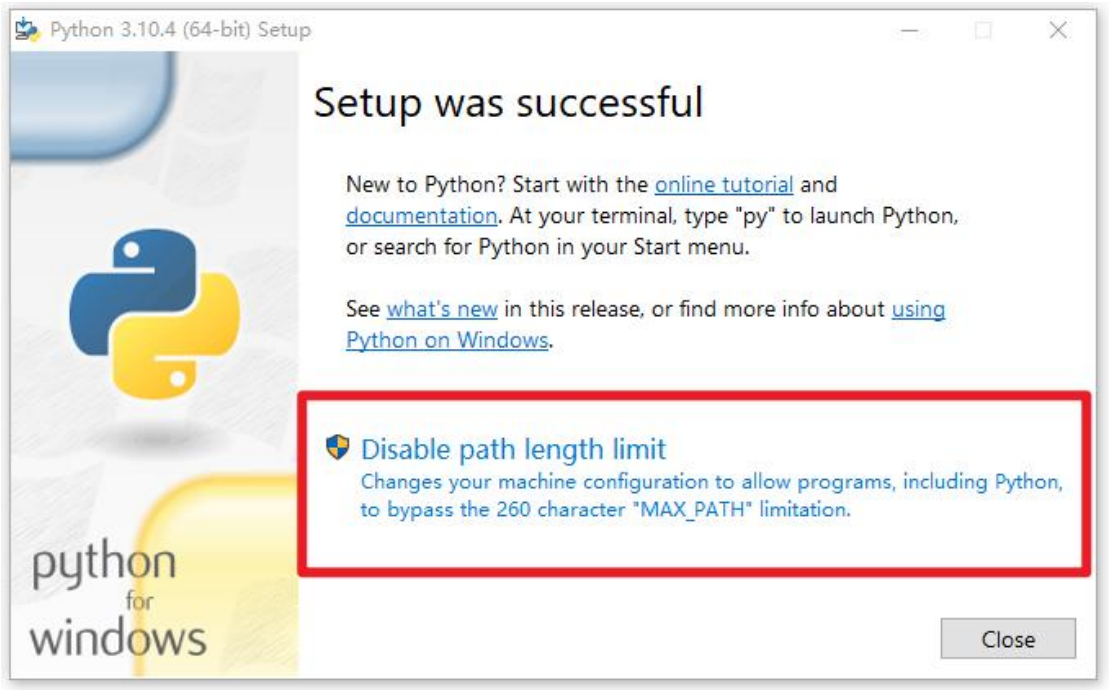
The download of Python is prioritized on the official website, download the latest installer file from the Python website, double-click the downloaded .exe file, and finally install it as per the following screenshot.

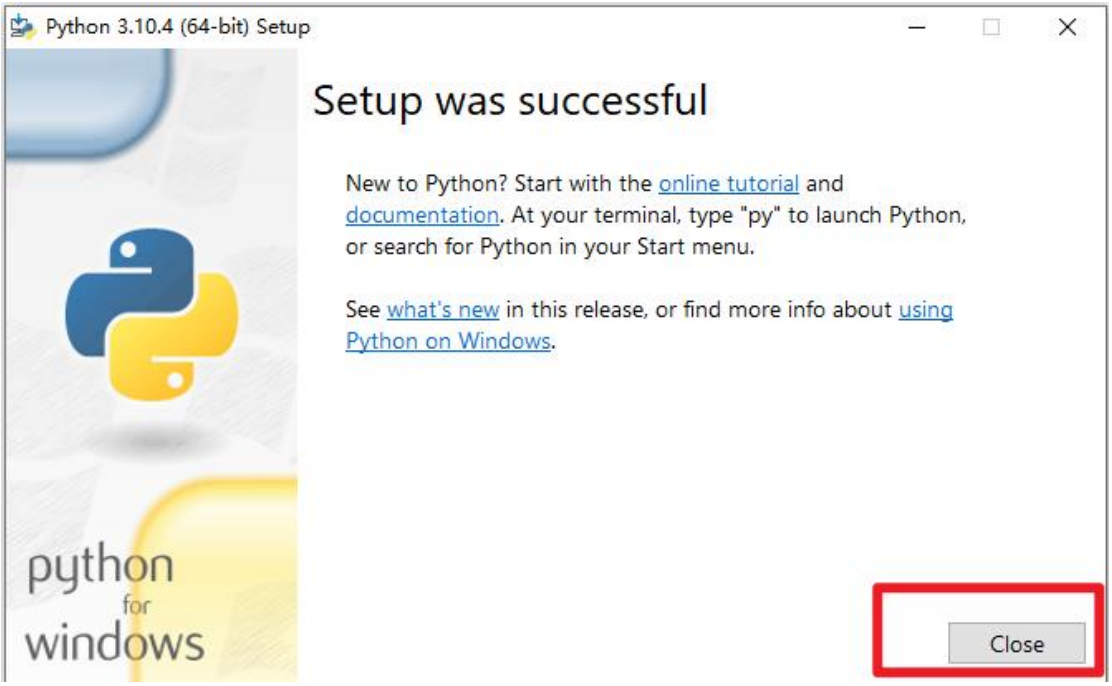
- Download website：https://www.python.org/downloads/



The address in point 2 of the picture above should be memorized, and the subsequent steps need to be used, for example, my python address is C:\Users\EBIT\AppData\LocalPrograms\Python\Python310, which will be used later.

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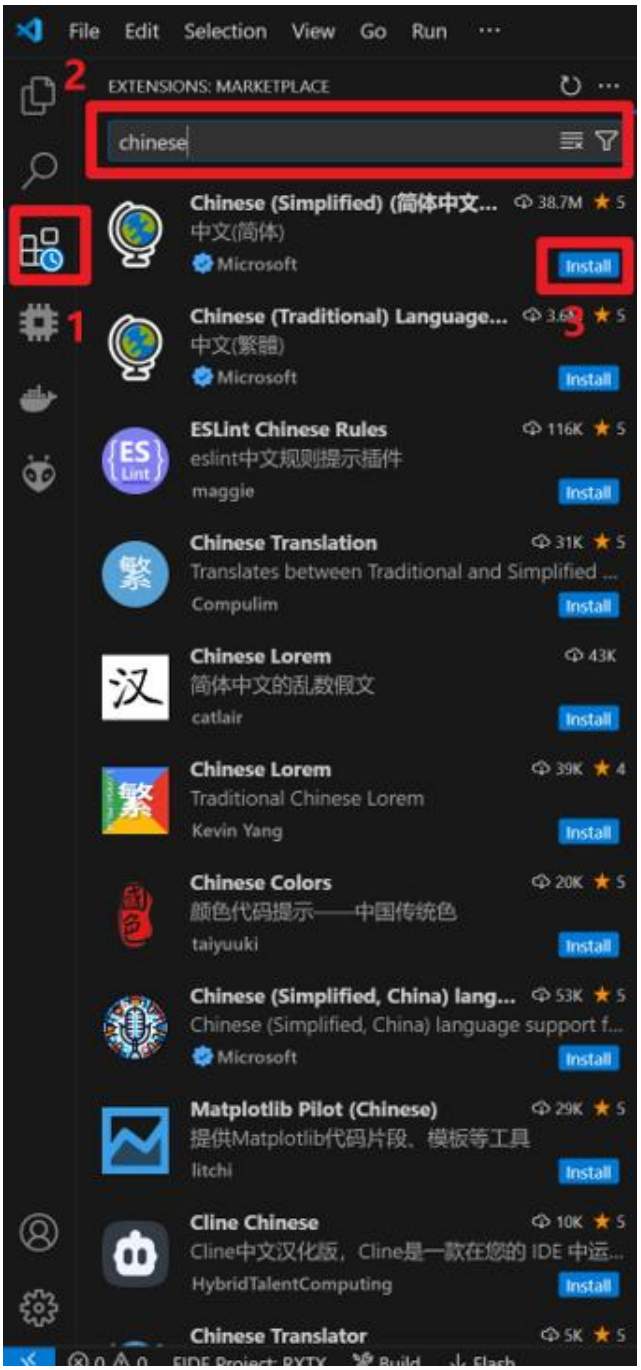
3、Installing PlatformIO

3.1 Installing PlatformIO

3.1.1 Installation of Chinese plug-in (optional)

Open Visual Studio Code, as shown in the following figure, click serial number 1 “Expand”, then in serial number 2 of the search box to collect “chinese”, select the plug-in as shown in the figure, click serial number 3 “Install”, and finally reopen Visual Studio Code.

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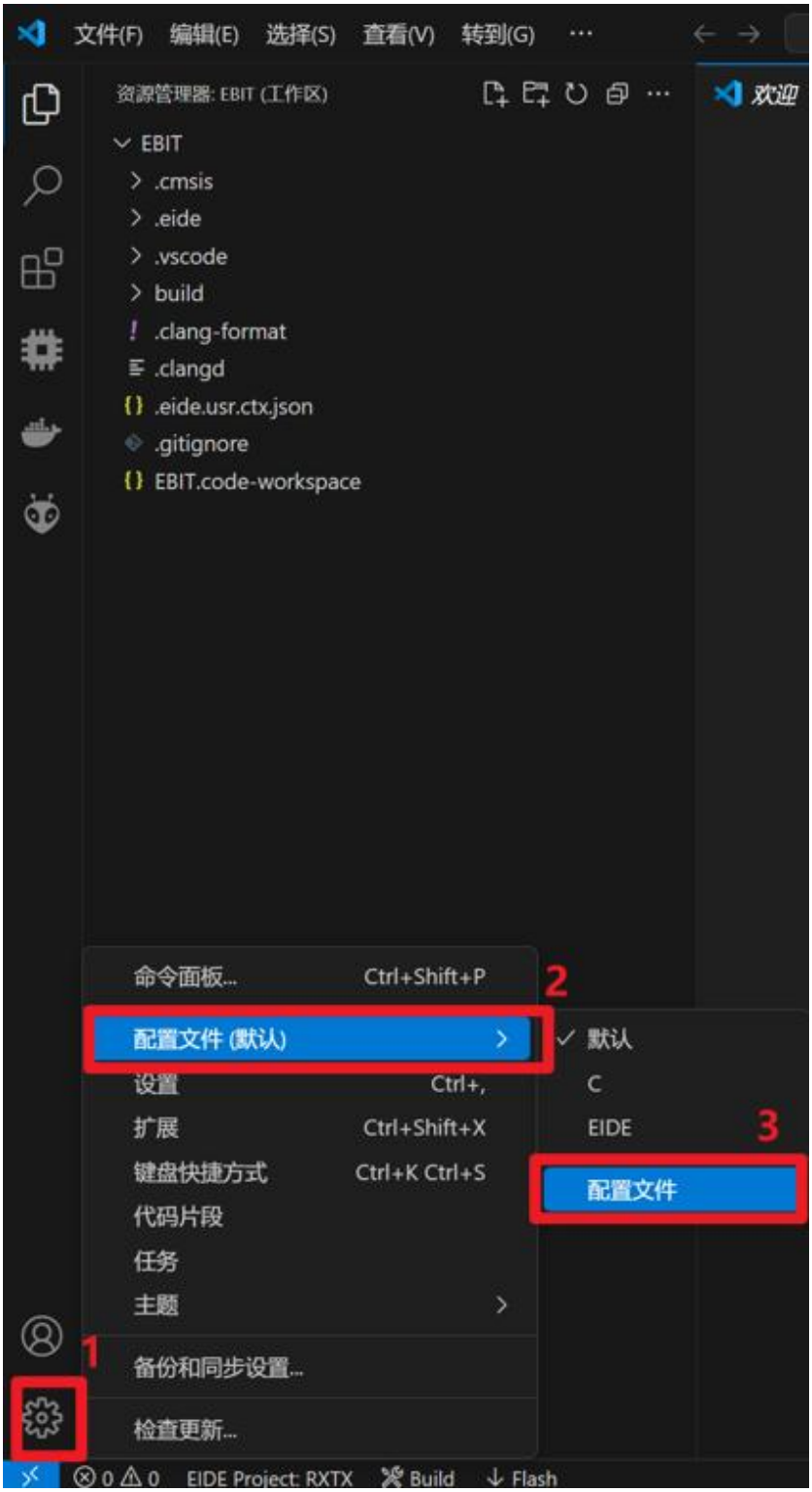


3.1.2 Visual Studio Code Stand-alone environment setup

Build a standalone runtime environment in Visual Studio Code to prevent contamination of other runtime environments, and install the standalone PlatformIO environment as shown in the figure.

Step 1: Click on serial number 1 “Settings icon”, then click on serial number 2 “Configuration file”, and finally click on serial number 3 “Configuration file”, then the configuration interface will appear.

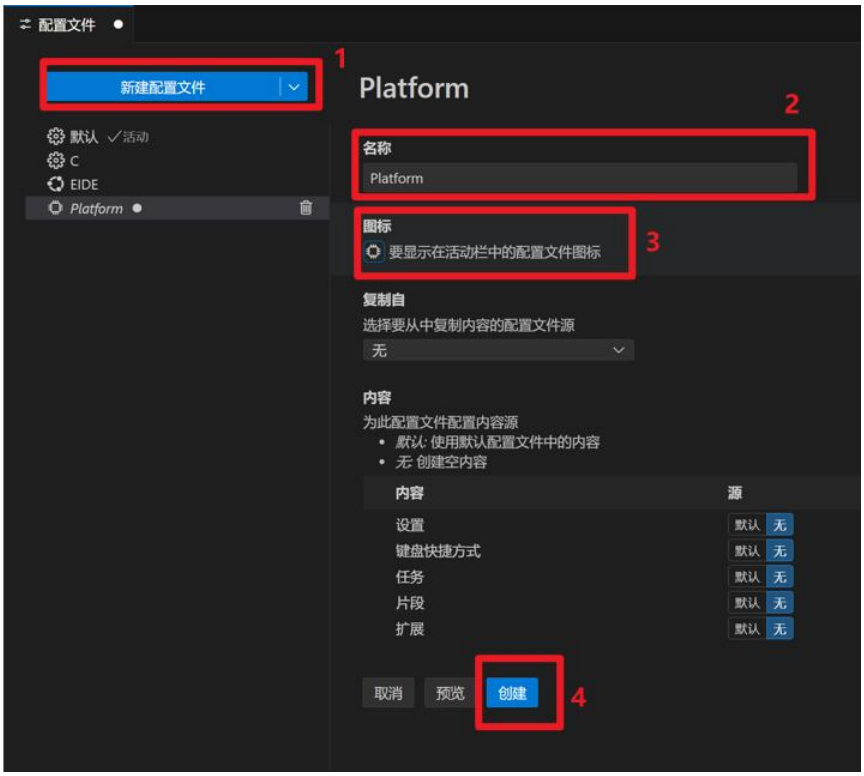
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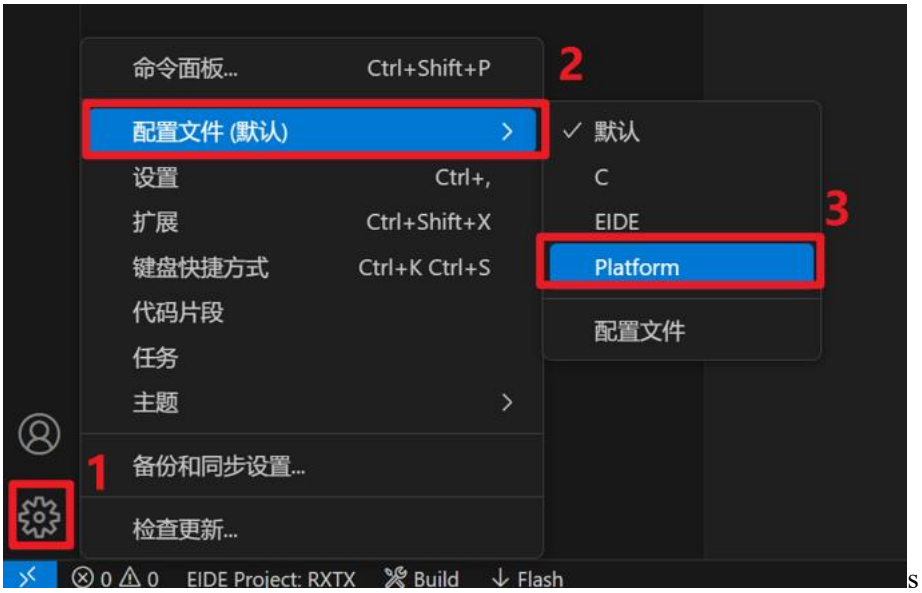
Step 2: In the pop-up “Profile” interface, first click on the serial number 1 “New Profile”, and then click on the serial number 2 “Name”, where the name is given to the current configuration environment to take a name, and then click on the serial number 3 “Icon”, select an icon to facilitate their memory, and finally click Create. Here the name is for the current configuration environment to take a name, here to

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“Platform” named, and then click on the serial number 3 “icon”, select an icon to facilitate their memory, and finally click Create.



Step 3: After creating a good configuration environment, then select the environment, as shown in the figure below, first click on the serial number 1 “Settings icon”, then click on the serial number 2 “Configuration file”, and finally click on the serial number 3 “Platform “.



s

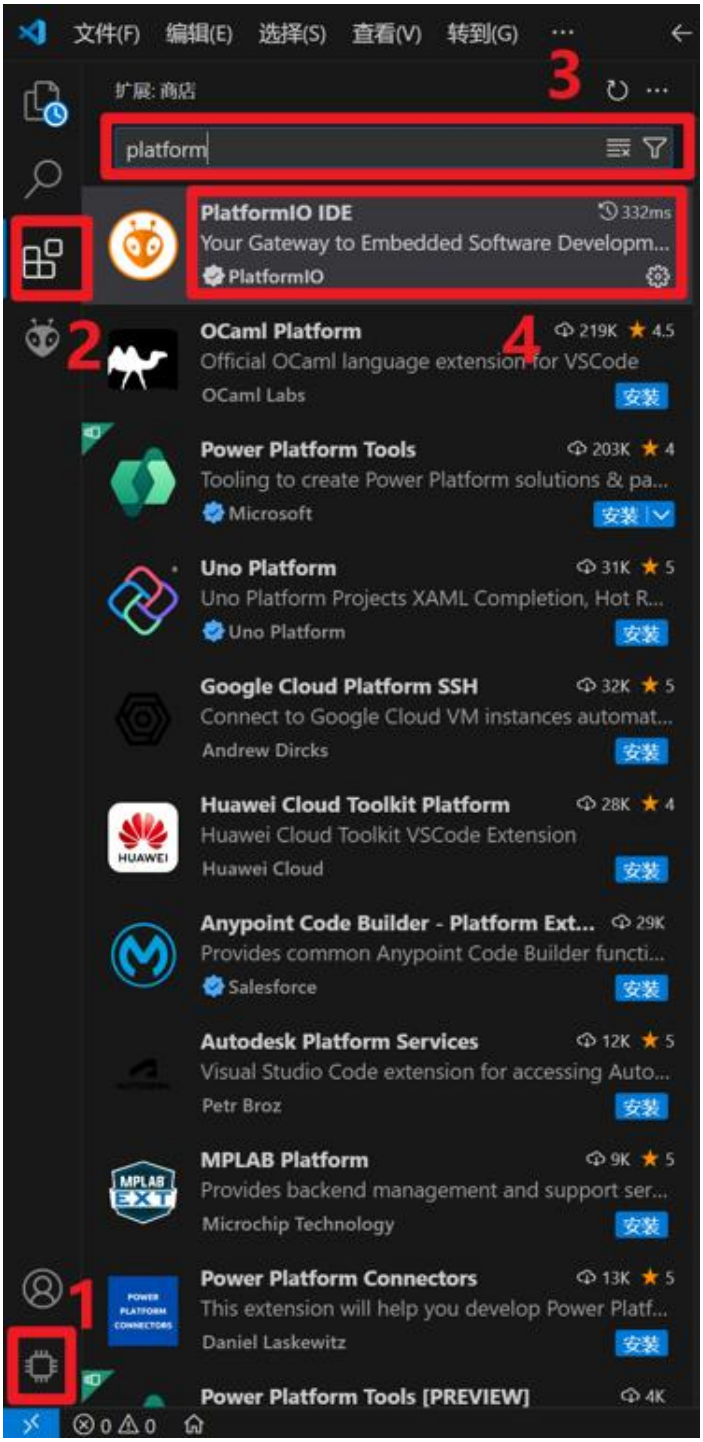
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3.1.3 Download PlatformIO

After the standalone environment is installed, first make sure that the location of serial number 1 is not the icon of the configuration environment that you have created, then click serial number 2 “Extension”, then search for “platform” in the search box of serial number 3, and finally click serial number 4 “Install” to install it. Then click “Install” in the search box of serial number 3, and finally click “Install” in serial number 4 to install.

Note: The installation of PlatformIO needs to be connected to an external network, if you don't have an external network, the download of data will be very slow, or even unsuccessful, if you don't have an external network, you can choose the “offline version of the installation tutorial” provided by us.

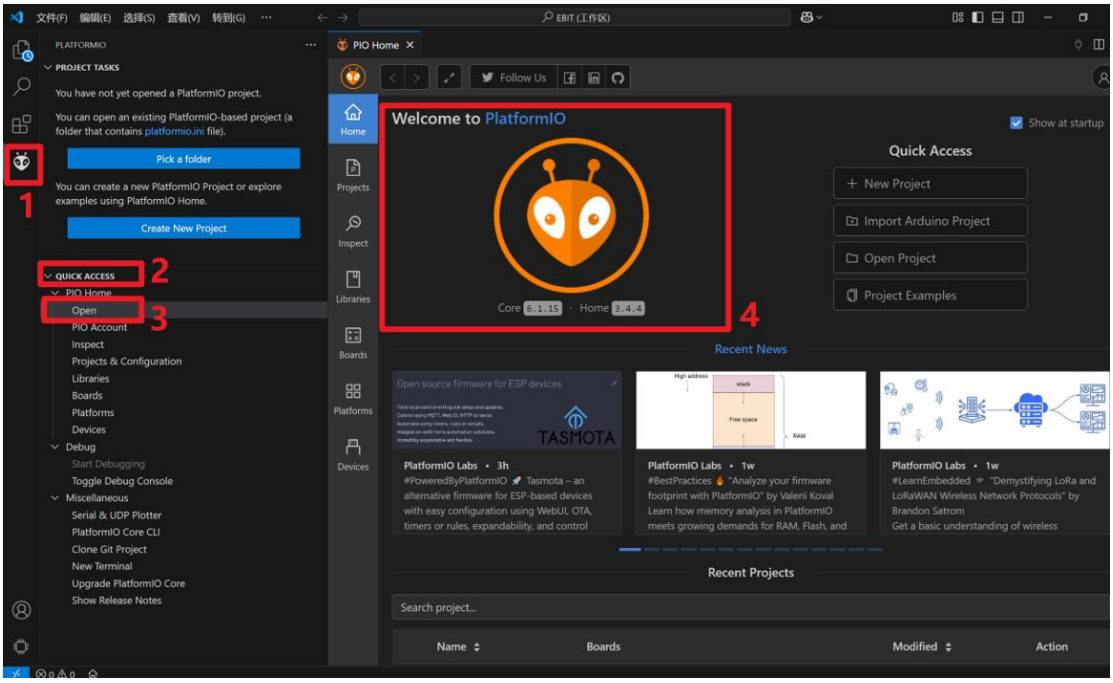
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The installation process is a bit long, please wait patiently, the final installation of PlatformIO logo is to appear as shown in the figure, click on the serial number 1 icon, and then click on the serial number 2 “QUICK ACCESS”, and then click on the “Open”. Finally, the icon of serial number 4 appears, which means the installation is successful.

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If the installation is not successful, please check whether your computer can access the Internet, or choose the “offline version of the installation tutorial” provided by us.



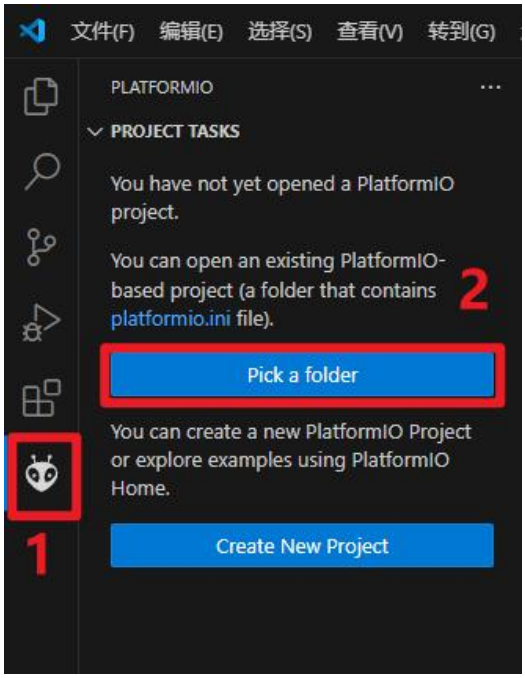
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4、Open the first project

4.1 Open the folder with Visual Studio Code

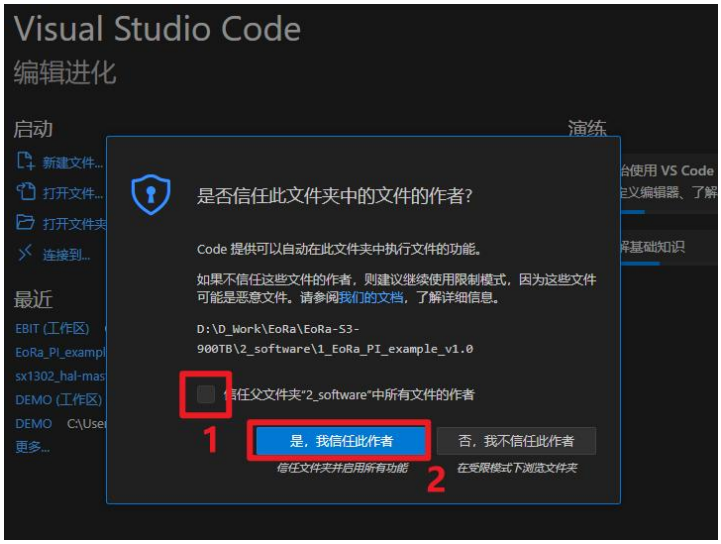
Step 1: Before you open the project file, make sure you have access to the Internet, otherwise check the “Offline Version Installation Tutorial”.

Step 2: Open Visual Studio Code, click on the icon of serial number 1, click on serial number 2 “Pick a folder”, then select our example code folder “EoRa_PI_example_v1.0 “.

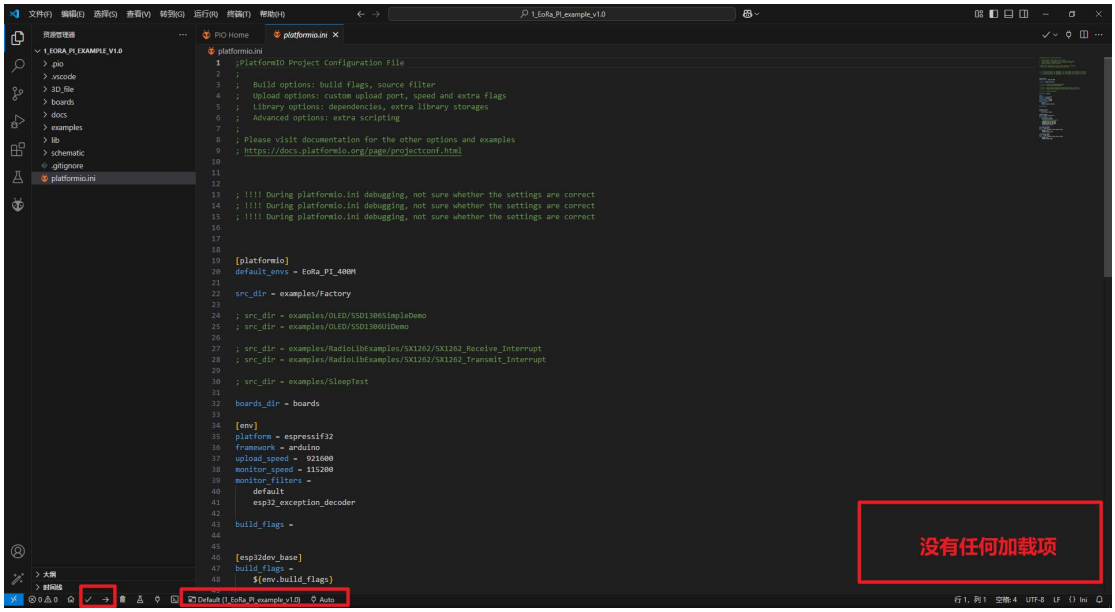


Step 3: When you open the file, the window shown below will pop up, check the blank box on the serial number 1, and then click on the serial number 2 “Yes, I trust this author”.

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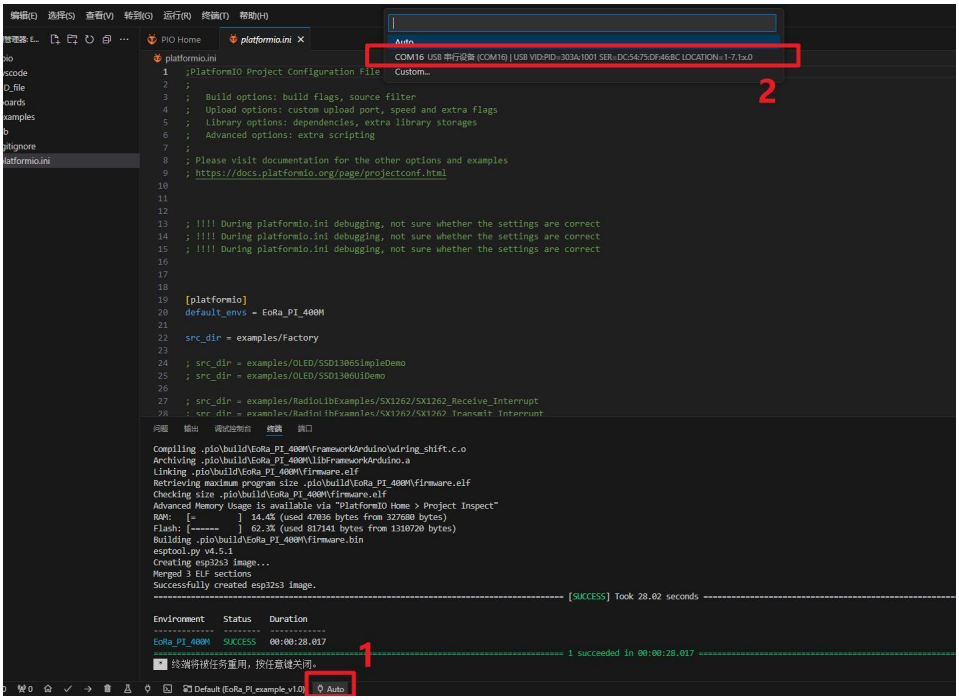
Step 3: When you open the code file, the Platform environment will download their own core software package, you must connect to the Internet to work, this process may be a little long, please be patient and wait for the Platform environment to download the completion of the state will appear as shown.



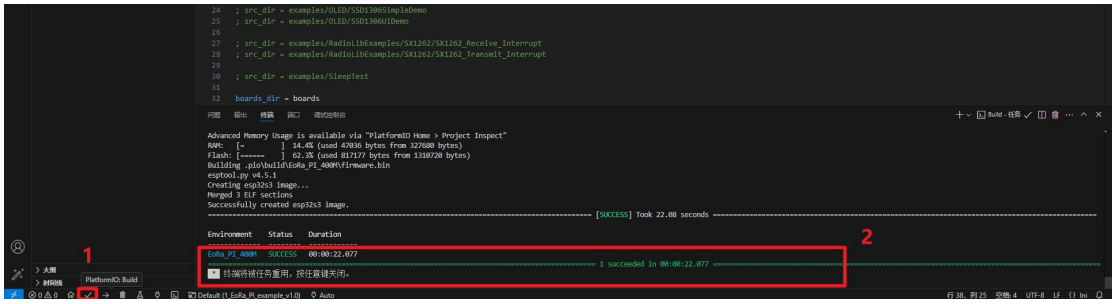
4.2 Download and burn

Step 1: Connect the EoRa-S3-x00TB module with data, then click on serial number 1 “Auto”, then a window with serial number 2 will pop up, select your serial device port correctly.

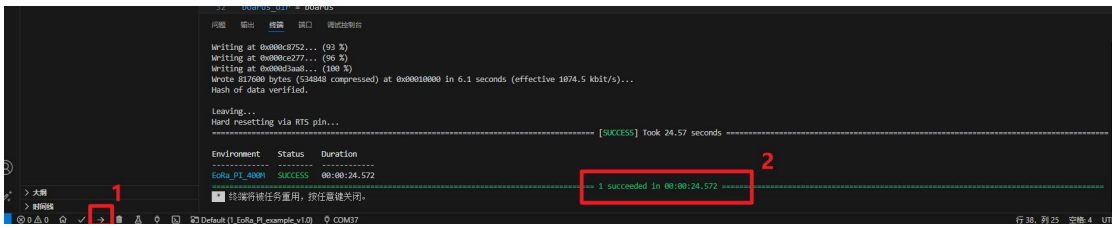
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Step 2: Click the compile button “ √ ” in serial number 1, and then wait for the completion of the compilation, the “succeeded” shown in serial number 2 means that the code is compiled successfully.



Step 3: Click the download button “->” of serial number 1, and then wait for the program to be burned and downloaded into the module, and “succeeded” of serial number 2 will appear if the burning is successful, and finally the EoRa-S3-x00TB module will run successfully as shown in the figure. x00TB module runs successfully, as shown in the figure.



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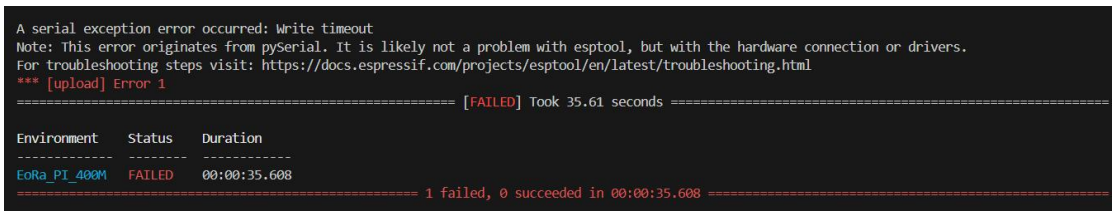


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5、Download program error resolution

5.1 Download burn-in program errors and reasons

A serial exception error occurred:write timeout is encountered when running PlatformIO under Visual Studio Code and downloading and burning because of the unstable hardware connection or driver. connection or driver is unstable.



5.2 Error Reporting Solutions

Step 1: After connecting the EoRa module, press the button “->” as shown in the picture, and then press and hold the BOOT button of the EoRa module (as shown in serial number 1 of picture B).

Step 2: Wait for the download view box to appear as shown in Figure C, press the RST button (as shown in Figure B, serial number 2) and then release it, wait for the program to be burned successfully, and after it is burned successfully, you can release the BOOT button.

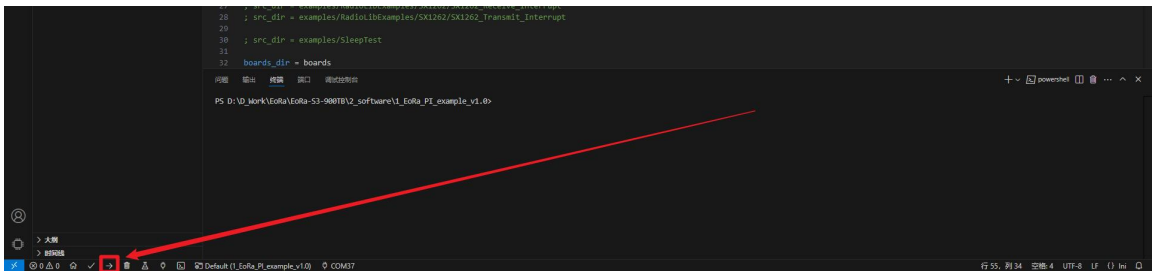


Figure A

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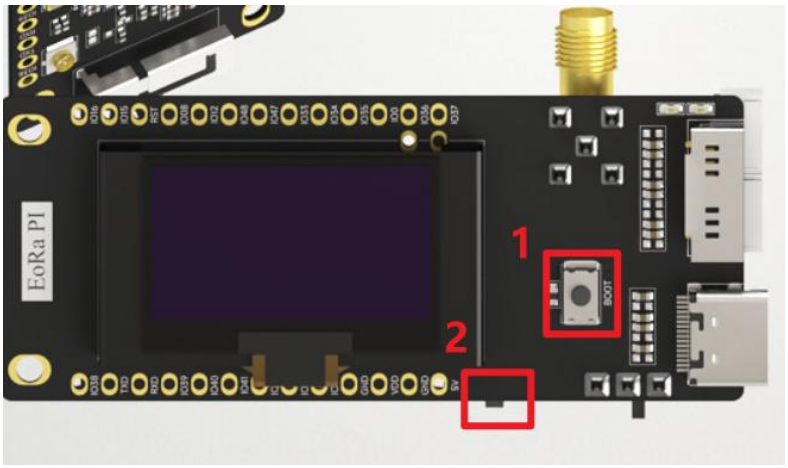


Figure B

```
Retrieving maximum program size .pio\build\EoRa_PI_400M\firmware.elf
Checking size .pio\build\EoRa_PI_400M\firmware.elf
Advanced Memory Usage is available via "PlatformIO Home > Project Inspect"
RAM:   [=         ]  14.4% (used 47036 bytes from 327680 bytes)
Flash: [======    ]  62.3% (used 817141 bytes from 1310720 bytes)
Configuring upload protocol...
AVAILABLE: cmsis-dap, esp-bridge, esp-builtin, esp-prog, espota, esptool, iot-bus-jtag, jlink, minimodule, olimex-arm-usb-ocd, olimex-arm-usb-ocd-h,
 olimex-arm-usb-tiny-h, olimex-jtag-tiny, tumpa
CURRENT: upload_protocol = esptool
Looking for upload port...
Using manually specified: COM129
Forcing reset using 1200bps open/close on port COM129
Waiting for the new upload port...
```

Figure C

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