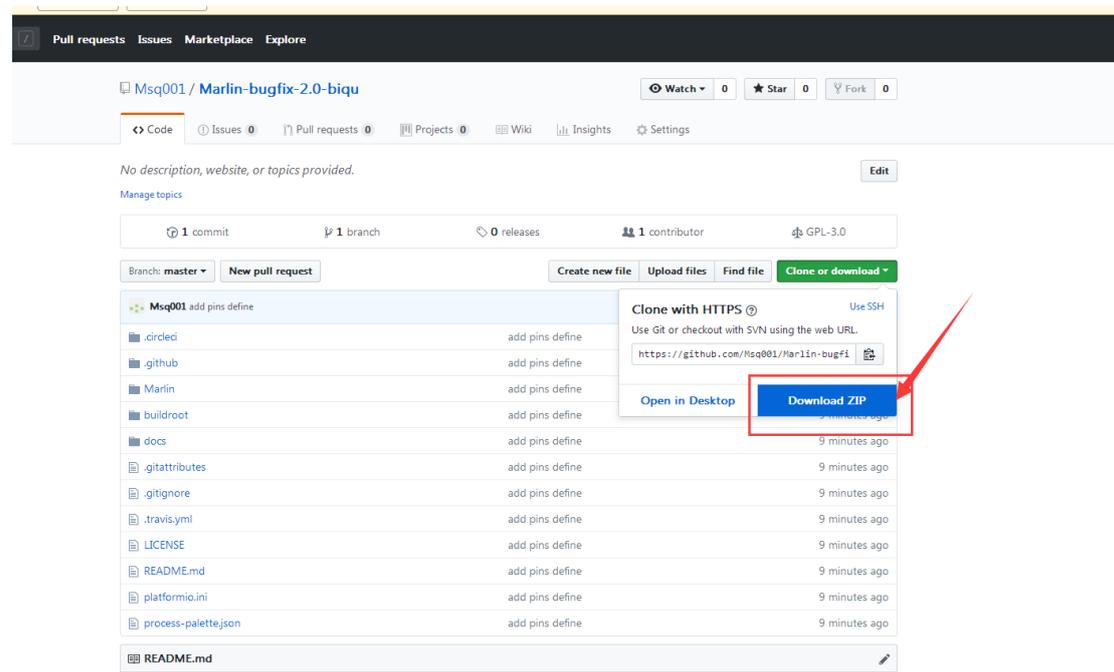


—, Use VSCode +PlatformIO to compile Marlin2.0

1.Download the Marlin2.0 firmware :

<https://github.com/Msq001/Marlin-bugfix-2.0-biqu>

When the download is complete, unzip it for standby application.



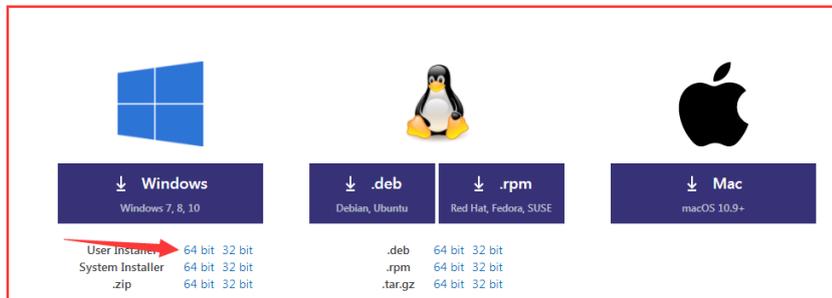
2.Download the Vscode from

<https://code.visualstudio.com/Download> .

Note : According to your computer to choose the relate version . Such as the Win7 64 bit operation ,choose the Windows 7,8,10 User Installer 64bit .

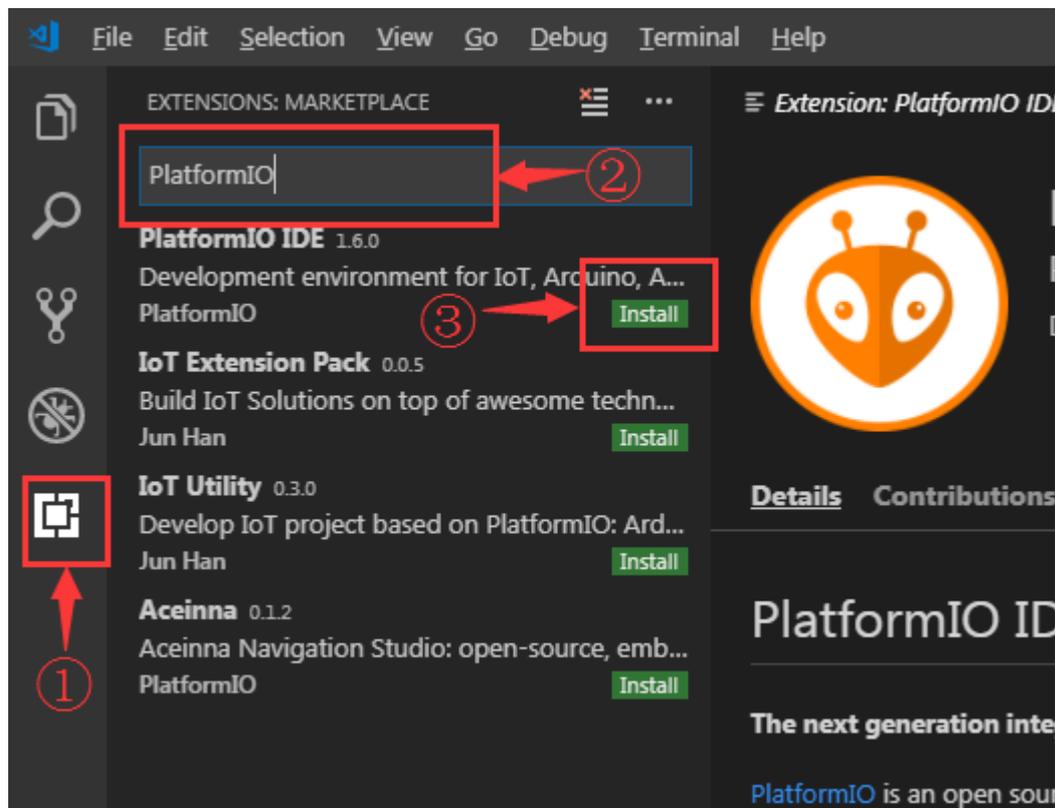
Download Visual Studio Code

Free and open source. Integrated Git, debugging and extensions.

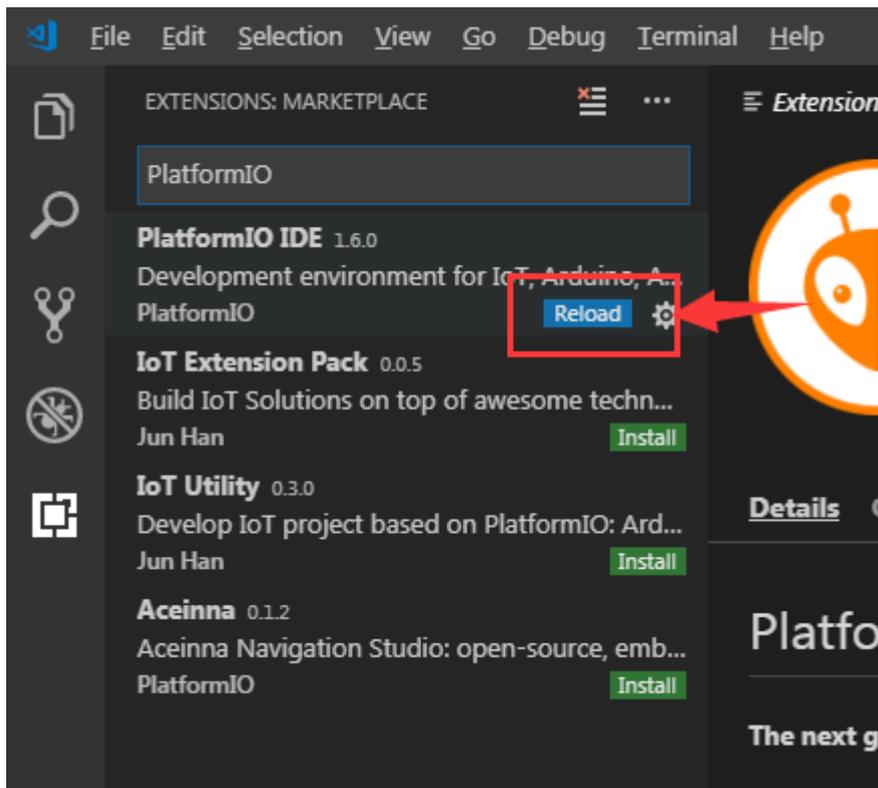


After the download is completed, double-click the installation. After the installation, open VSCode.

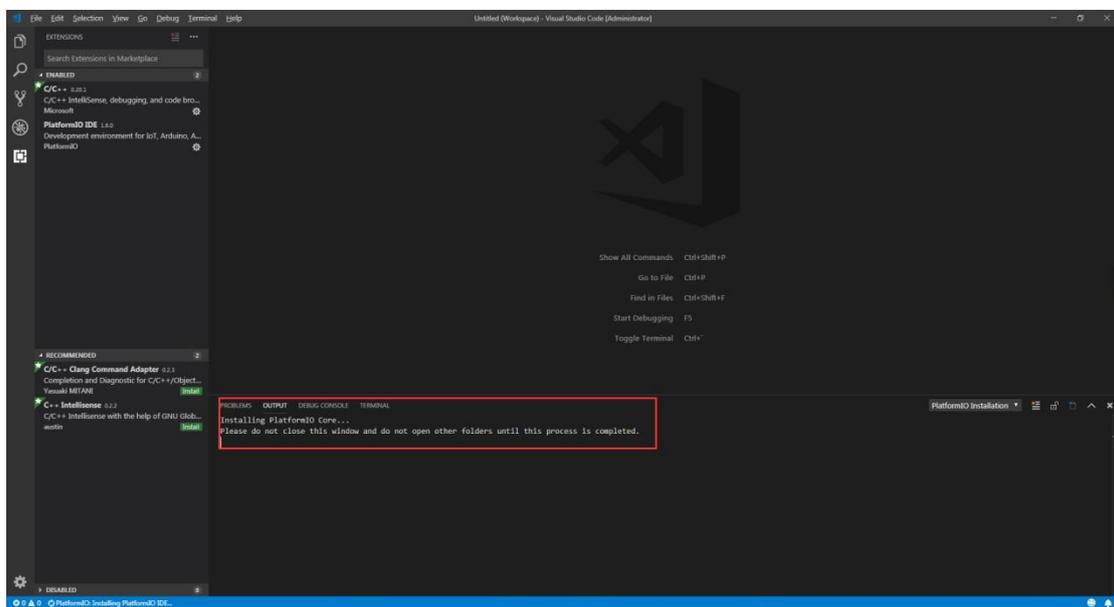
3. You also need to install the PlatformIO plugin, click on the steps below. Click on the step 1 in the figure below, enter PlatformIO in step 2 and click step 3 Install to install.



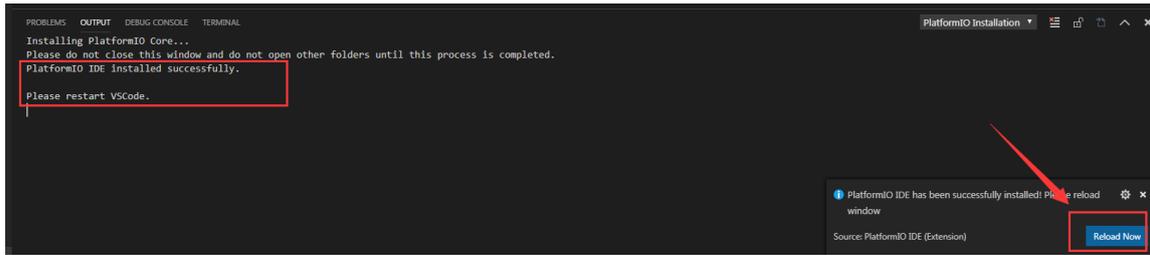
After the download is complete, you need to Reload.



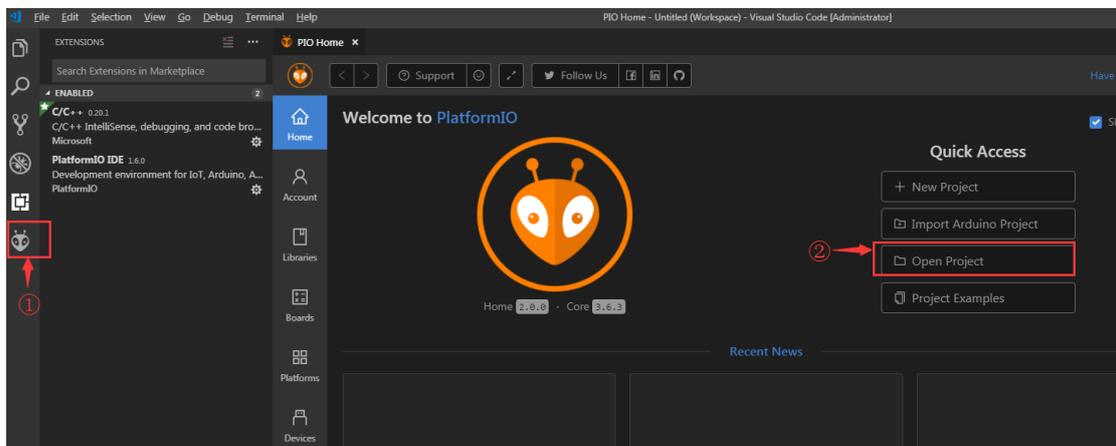
After Reload, you will be prompted to install PlatformIO Core. Please wait.



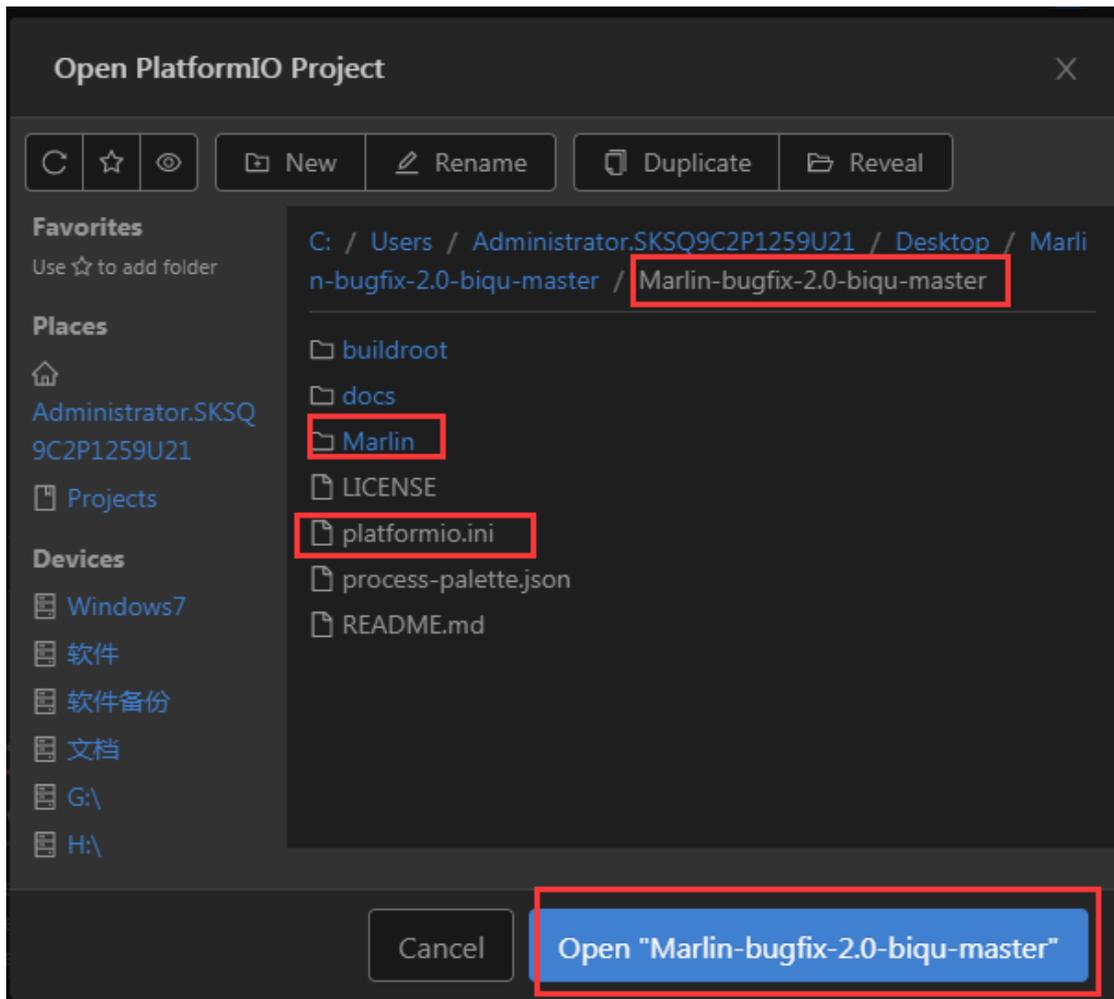
After the installation is successful, you need to Reload it again, and then PlatformIO is installed.



4. In the lower left corner of VS Code, you can see the icon (1), which is PlatformIO plug-in. Click (2) Open Project to Open the Project.



Find the marlin2.0 source directory we extracted in the very first step, and click Open.



After opening the project, go to the platformio.ini file and change the default environment from megaatmega2560 to LPC1768, env_default = LPC1768

```
11 # targets = upload
12
13 #
14 # By default platformio build will abort after 5 errors.
15 # Remove '-fmax-errors=5' from build_flags below to see all.
16 #
17
18 [platformio]
19 src_dir = Marlin
20 build_dir = .pioenvs
21 lib_dir = .pio\lib
22 libdeps_dir = .pio\libdeps
23 boards_dir = buildroot\share\PlatformIO\boards
24 env_default = LPC1768
25
26 [common]
27 default_src_filter = +<src/*> -<src/config> -<src/HAL> +<src/HAL/shared>
28 build_flags = -fmax-errors=5
29
30 -g
31 -gdb
32 lib_deps =
33 https://github.com/MarlinFirmware/U8glib-HAL/archive/dev.zip
34 LiquidCrystal@1.3.4
35 TMCStepper@1.0.0
36 Adafruit_NeoPixel@1.1.3
37 https://github.com/lincomatic/liquidTWI2/archive/30aa480.zip
38 https://github.com/ameyer/Arduino-L6470/archive/master.zip
39 https://github.com/trinamic/TMC26XStepper/archive/c1921b4.zip
40
41 #####
42 # Unique Core Architectures #
```

Then go to the configuration.h file and modify it

```
#define SERIAL_PORT -1
```

```
#define SERIAL_PORT_2 0
```

```
#define BAUDRATE 115200
```

```
#define MOTHERBOARD BOARD_BIQU_SKR_V1_1
```

```
105 * :[-1, 0, 1, 2, 3, 4, 5, 6, 7]
106 */
107 #define SERIAL_PORT -1
108
109 /**
110 * Select a secondary serial port on the board to use for communication with the host.
111 * This allows the connection of wireless adapters (for instance) to non-default port pins.
112 * Serial port -1 is the USB emulated serial port, if available.
113 *
114 * :[-1, 0, 1, 2, 3, 4, 5, 6, 7]
115 */
116 #define SERIAL_PORT_2 0
117
118 /**
119 * This setting determines the communication speed of the printer.
120 *
121 * 250000 works in most cases, but you might try a lower speed if
122 * you commonly experience drop-outs during host printing.
123 * You may try up to 1000000 to speed up SD file transfer.
124 *
125 * :[2400, 9600, 19200, 38400, 57600, 115200, 250000, 500000, 1000000]
126 */
127 #define BAUDRATE 115200
128
129 // Enable the Bluetooth serial interface on AT90USB devices
130 // #define BLUETOOTH
131
132 // The following define selects which electronics board you have.
133 // Please choose the name from boards.h that matches your setup
134 #define MOTHERBOARD
135 #define MOTHERBOARD BOARD_BIQU_SKR_V1_1
136 #endif
137
138 // Optional custom pins for your board or other custom hardware
```

After the modification is completed, press Ctrl+Alt+B, platformio will automatically download the compile component and then compile.

```
PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL

Compiling .pioenvs\LPC1768\FrameworkArduino\WInterrupts.cpp.o
Compiling .pioenvs\LPC1768\FrameworkArduino\Wire.cpp.o
Compiling .pioenvs\LPC1768\FrameworkArduino\arduino.cpp.o
Compiling .pioenvs\LPC1768\FrameworkArduino\main.cpp.o
Compiling .pioenvs\LPC1768\FrameworkArduino\pwm.cpp.o
Archiving .pioenvs\LPC1768\libFrameworkArduino.a
Linking .pioenvs\LPC1768\firmware.elf
Checking size .pioenvs\LPC1768\firmware.elf
Building .pioenvs\LPC1768\firmware.bin
Memory Usage -> http://bit.ly/pio-memory-usage
DATA: [== ] 23.2% (used 7564 bytes from 32568 bytes)
PROGRAM: [== ] 20.5% (used 97368 bytes from 475136 bytes)
===== [SUCCESS] Took 179.05 seconds

----- [SUMMARY] -----
Environment megaatmega2560 [SKIP]
Environment megaatmega1280 [SKIP]
Environment at90usb1286_cdc [SKIP]
Environment at90usb1286_dfu [SKIP]
Environment DUE [SKIP]
Environment DUE_USB [SKIP]
Environment DUE_debug [SKIP]
Environment LPC1768 [SUCCESS]
Environment LPC1769 [SKIP]
Environment melzi [SKIP]
Environment melzi_optiboot [SKIP]
Environment rambo [SKIP]
Environment sanguino_atmega644p [SKIP]
Environment sanguino_atmega1284p [SKIP]
Environment STM32F1 [SKIP]
Environment STM32F4 [SKIP]
Environment ARMED [SKIP]
Environment teensy35 [SKIP]
Environment malyanm200 [SKIP]
Environment esp32 [SKIP]
Environment fysetc_f6_13 [SKIP]
===== [SUCCESS] Took 179.08 seconds

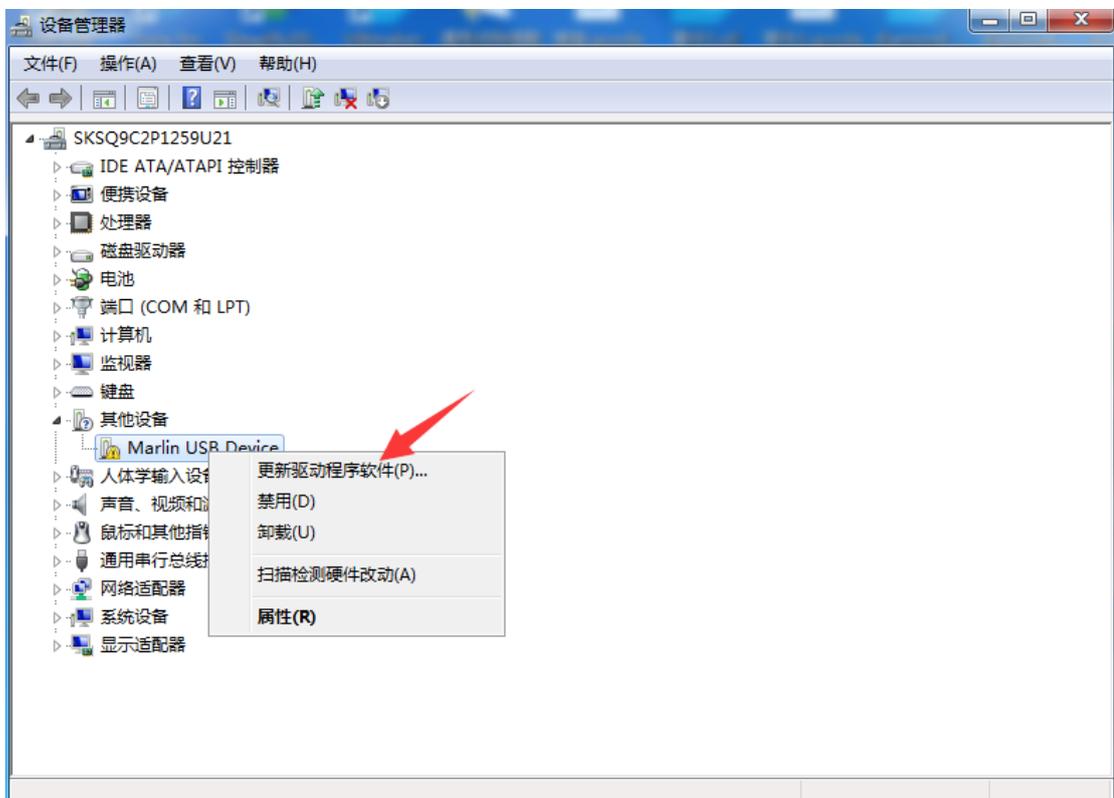
Terminal will be reused by tasks, press any key to close it.
```

After the compilation is successful, a firmware.bin file will be generated in the .pioenvs\LPC1768 directory. We will copy this file to the TF card of the motherboard, and then reset the motherboard, so that the firmware is burned into the motherboard.

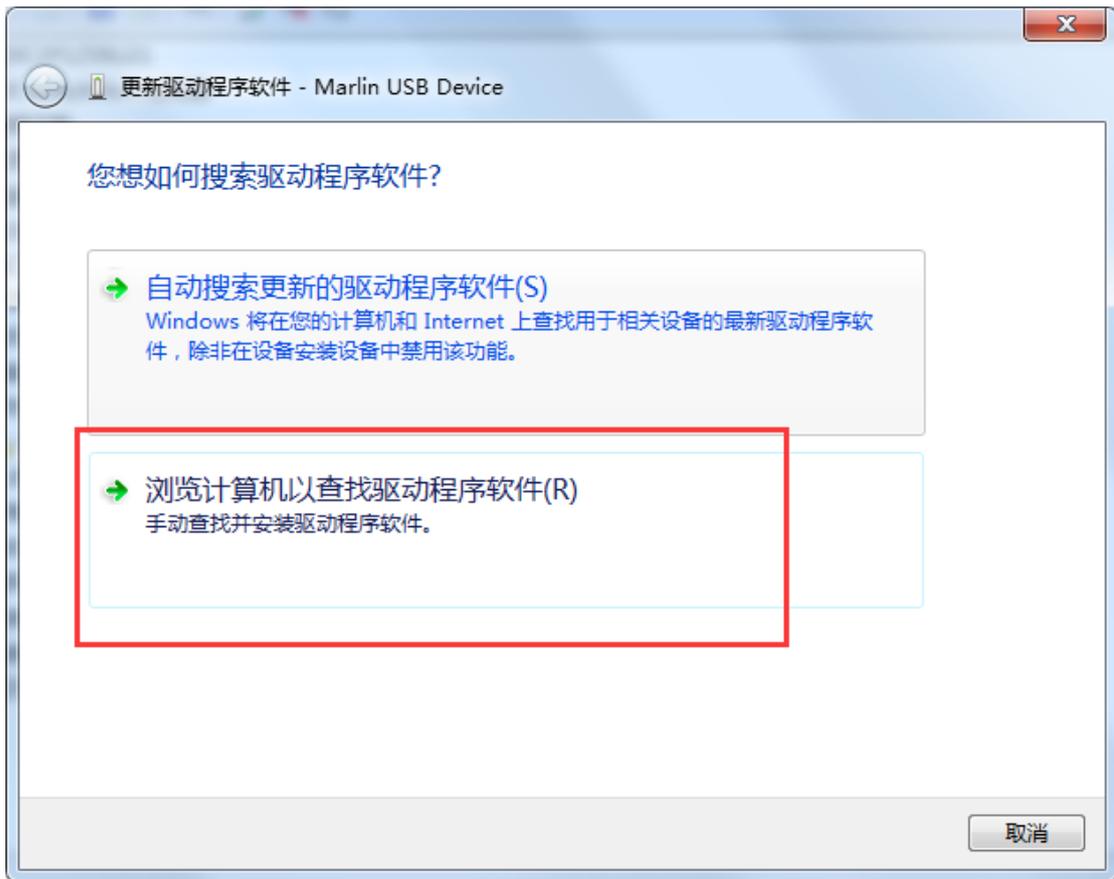
5. Online printing, the first installation of marlin2.0, the computer identification motherboard needs to install usb to serial port driver, in the directory of the firmware as shown below. Because its path is too long, we copy it to an easy to find location, copy it to the desktop.



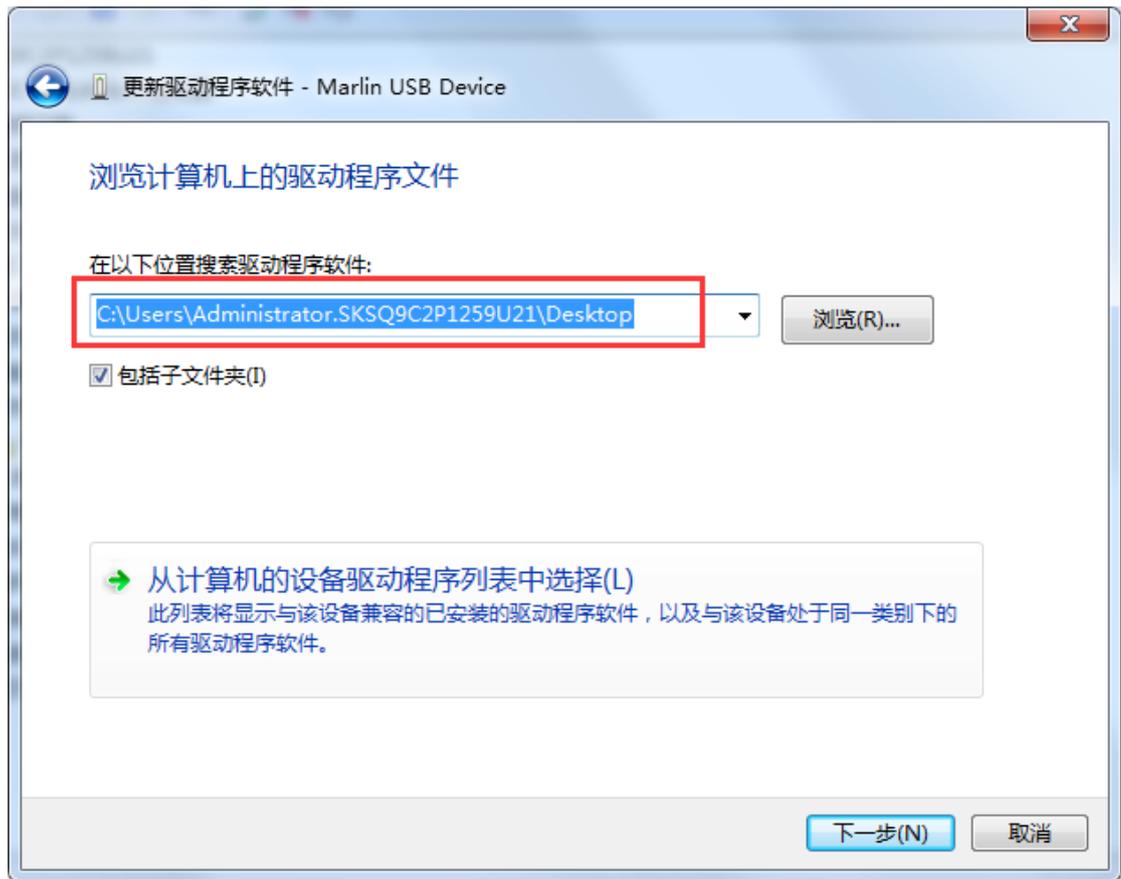
Open the Device manager, you can see that there is an unrecognized Marlin USB Device, click to update the driver software.



Browse the computer to find the driver software.



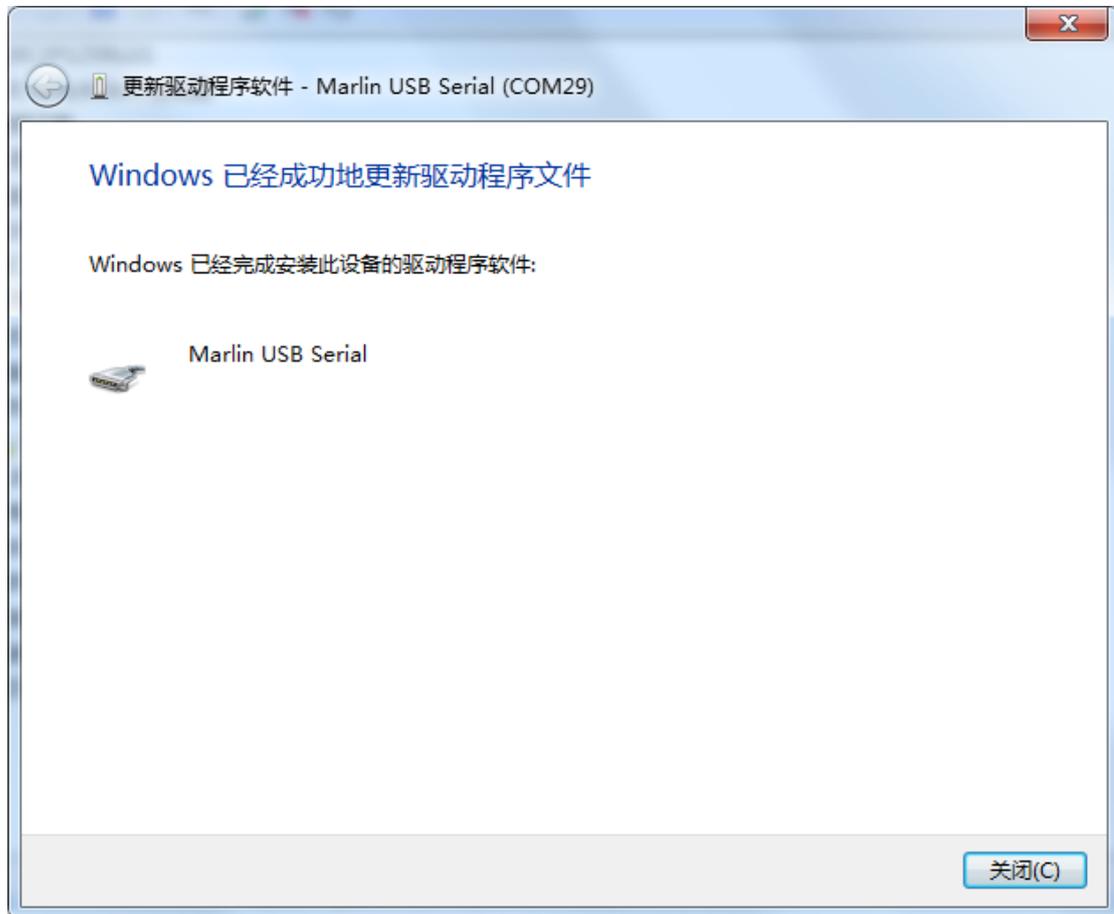
Select the path as the directory where the lpc176x_usb_driver.inf driver is located. We copied it to the desktop before, so select the desktop location : C:\Users\<(Users Name)\Desktop and click Next. Check with the below picture .



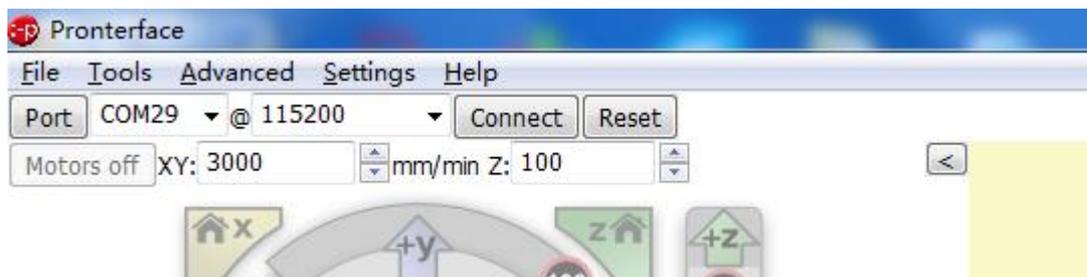
If you have firewall alerts, choose to always install this driver software.



Prompt has been successfully updated driver software, then the driver has been selected successfully, remember the port number, I am COM29.



Open the printrun online printing software, take the printrun as an example, select Port COM29, @115200, and then click Connect.



On the right, you can see Printer is now online. This means that you have successfully connected to the Printer. Now you can use your computer to control the Printer

