PlatformIO Nibble programming guide

Programming with PlatformIO

Creating a new project

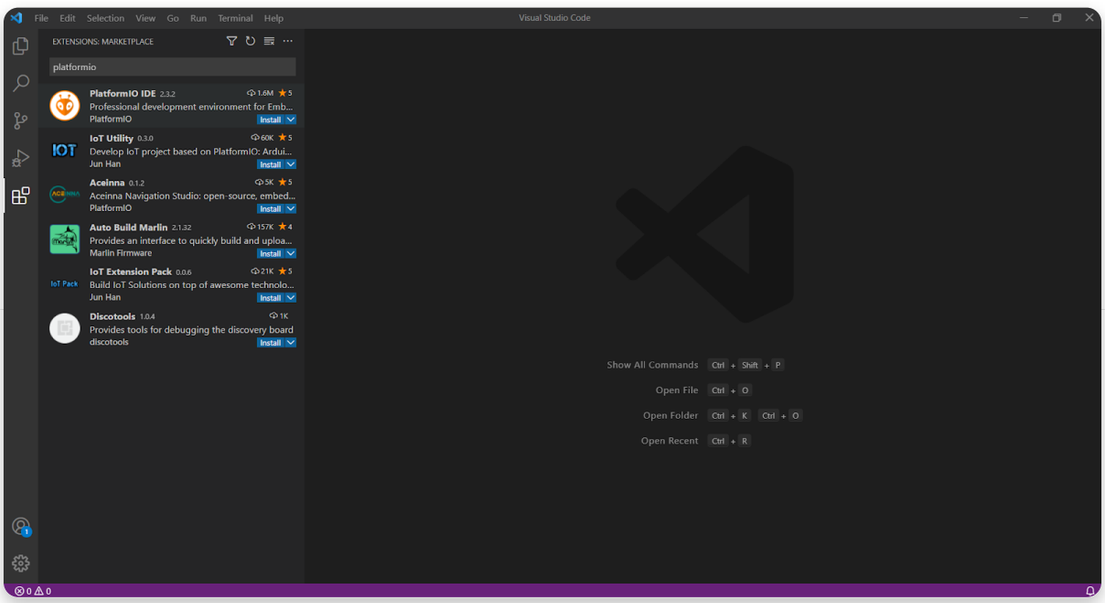
Welcome to the PlatformIO and VSCode Nibble programming guide.

We'll use PlatformIO and VSCode to teach you how to upload code to your Nibble, so let's get started!

Installation

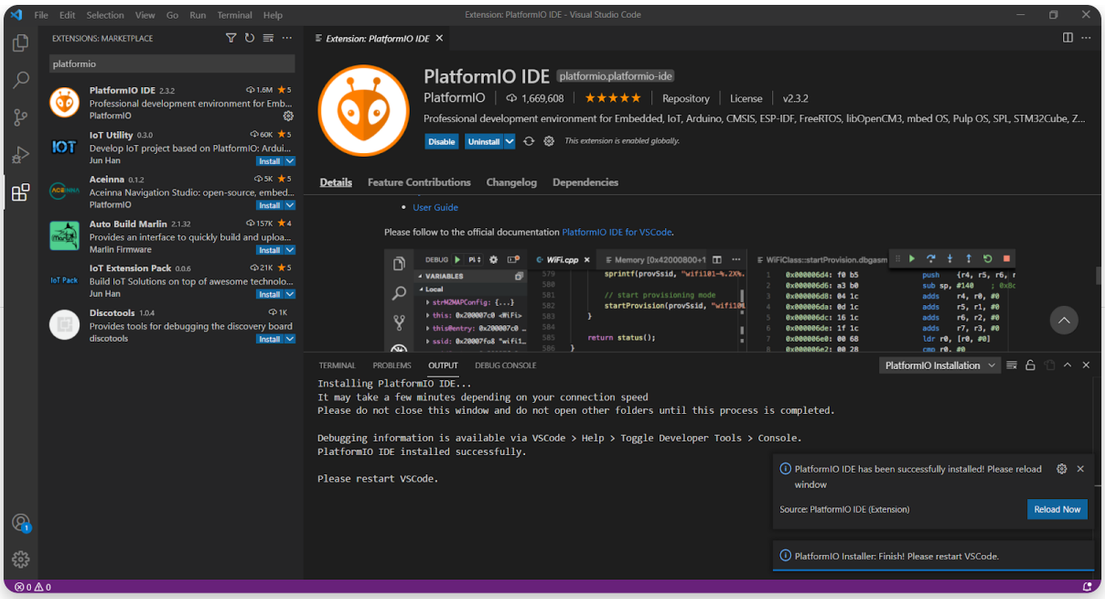
Before starting make sure to download and install Visual Studio Code. You can do that right here.

Go to the Extensions tab and type PlatformIO. Then click Install.



Click Install next to PlatformIO

When prompted by PlatformIO, restart VSCode.



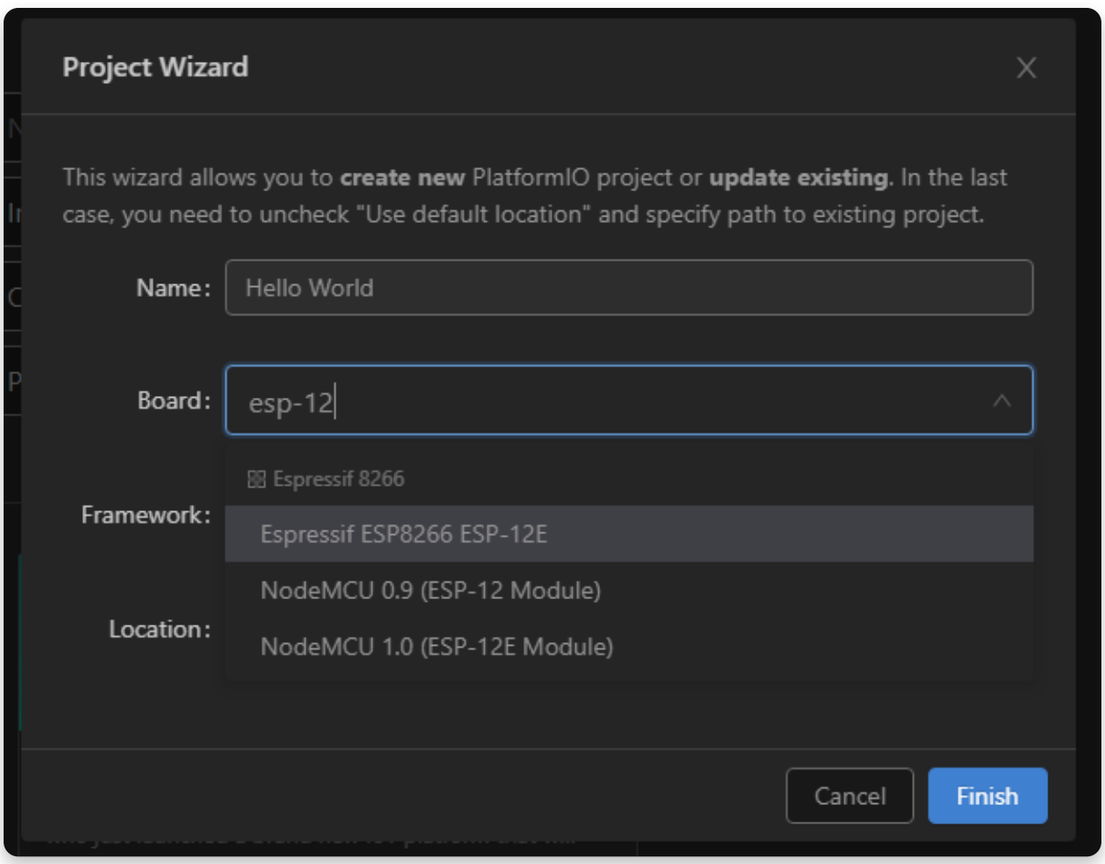
Restart VSCode

Creating a new project

Once you're on PlatformIO's home page, select New Project. The program will then prompt you to choose a name for your project so be creative. We're going to start with a simple Hello World.

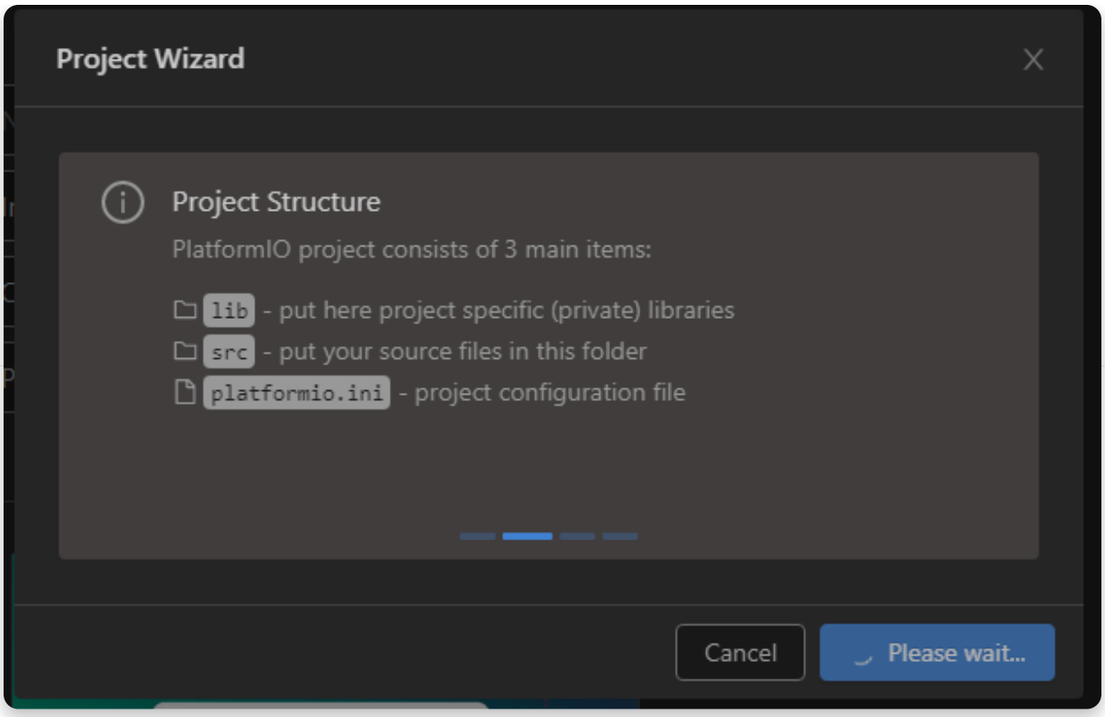
Type in esp-12 and select the Espressif ESP8266 ESP-12E board from the boards dropdown menu.

Leave the Framework option on Arduino. The default project path on Windows is Documents/PlatformIO/Projects, but you’re free to save it wherever you like.



Fill out the New project form

After clicking Finish, you’ll need to wait a bit while the board files are downloaded.



Be patient

Creating a simple program

After creating a new empty PlatformIO project you're ready for the next step.

Preparation

The PlatformIO project structure consists of the following:

- platformio.ini (Project Configuration File)
- src directory where you should place source code (*.h, *.c, *.cpp, *.S, *.ino, etc.)
- lib directory can be used for the project-specific (private) libraries

Now, you need to download the necessary libraries and configuration files from our GitHub repository and place them in your project directory.

Writing a simple program

We're now going to write a simple program. Here's a quick example:

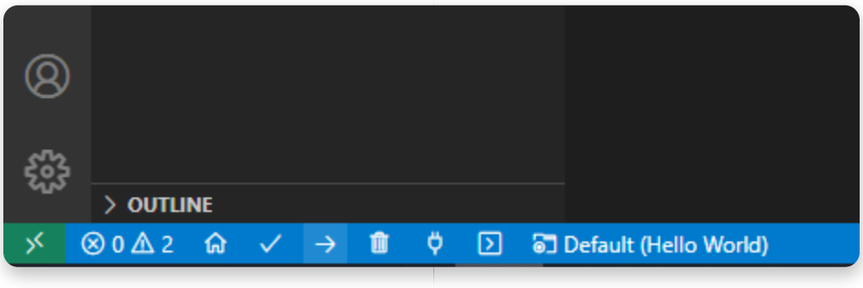
```
#include
#include

Display* display;
Sprite* sprite;

void setup() {
  Nibble.begin();
  display = Nibble.getDisplay();
  sprite = display-&gt;getBaseSprite();

  sprite-&gt;clear(TFT_BLACK);
  sprite-&gt;setTextColor(TFT_WHITE);
  sprite-&gt;setTextFont(2);
```

```
15   sprite-&gt;setCursor(0,0);
16   sprite-&gt;print("Hello World!");
17   display-&gt;commit();
18
19 }
20
21 void loop() {
22   delay(1000);
23 }
```

Next steps

Turn on your Nibble and plug it into your computer with a USB cable.

Click the Upload button on the bottom left part of the screen (arrow pointing to the right).



Click on the arrow pointing to the right

You have now uploaded your code on the Nibble!