

Setting up the Development Environment

1. Install Visual Studio Code

Download and install VSCode from the official website:

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

2. Install USB Drivers

The driver is required for Windows to recognize the ESP32.

1. Download the Silicon Labs **CP210x Windows Drivers**:
<https://www.silabs.com/developers/usb-to-uart-bridge-vcp-drivers>
2. Extract the downloaded archive **CP210x_Windows_Drivers.zip**
3. Install the driver by running **CP210xVCPInstaller_x64.exe**


3. Install Visual C++ Redistributable

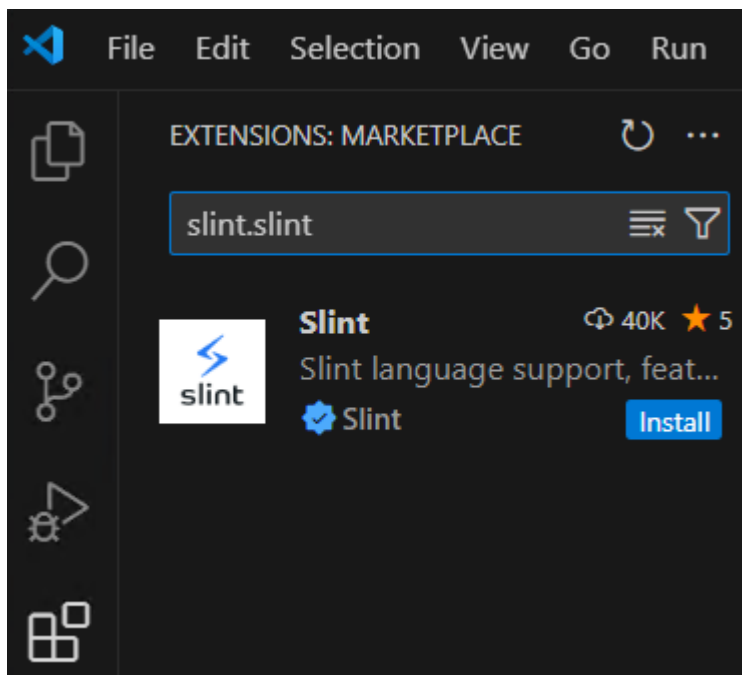
The Visual C++ Redistributable is required for compiling the project.

1. Download the latest version of the Visual C++ Redistributable Packages from the Microsoft website:
<https://learn.microsoft.com/en-us/cpp/windows/latest-supported-vc-redist>
2. Run the downloaded file and follow the instructions to complete the installation.

4. Install Slint Extension (optional)

The Slint extension for VSCode adds support for the Slint design markup language and live previews.

1. Open VSCode.
2. Open the **Extensions** view:
 - Via the Extensions icon  in the sidebar or
 - Using the shortcut **Ctrl + Shift + X**.
3. Enter **slint.slint** in the search field.
4. Install the first result **Slint** by clicking "Install".

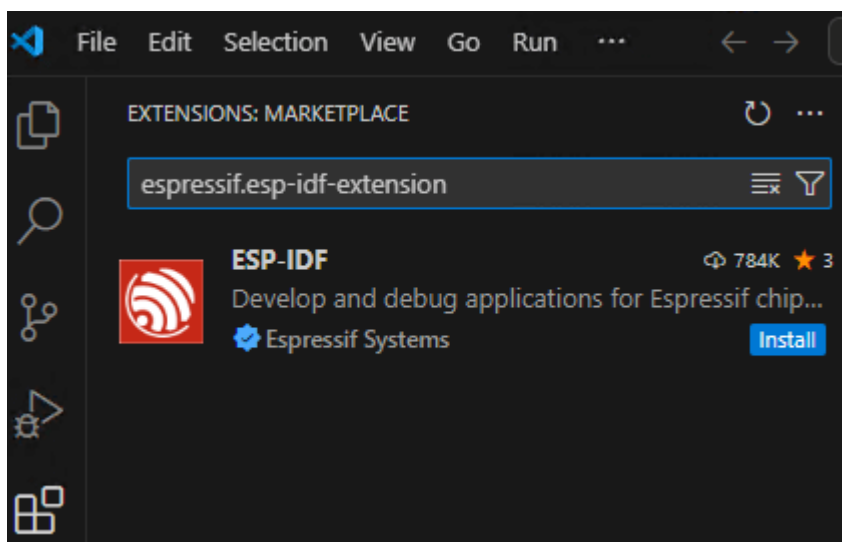


Alternatively, you can install the extension directly from the Visual Studio Marketplace:

[Slint](#)

5. Install ESP-IDF Extension

1. Open VSCode.
2. Open the **Extensions** view
3. Enter `espressif.esp-idf-extension` in the search field.
4. Install the first result **ESP-IDF** by clicking "Install".



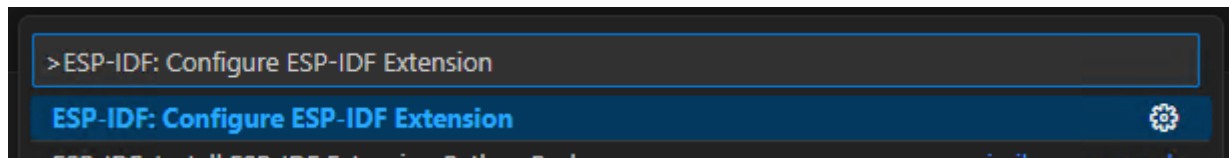
Alternatively, you can install the extension directly from the Visual Studio Marketplace:

[ESP-IDF](#)

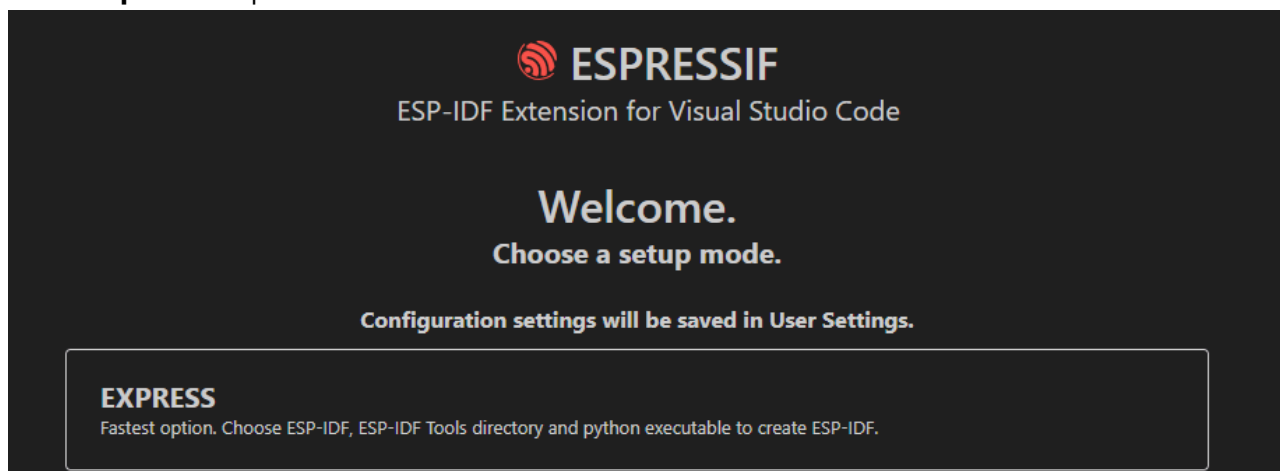
6. Set up the ESP-IDF Extension

After installation, the extension needs to be configured.

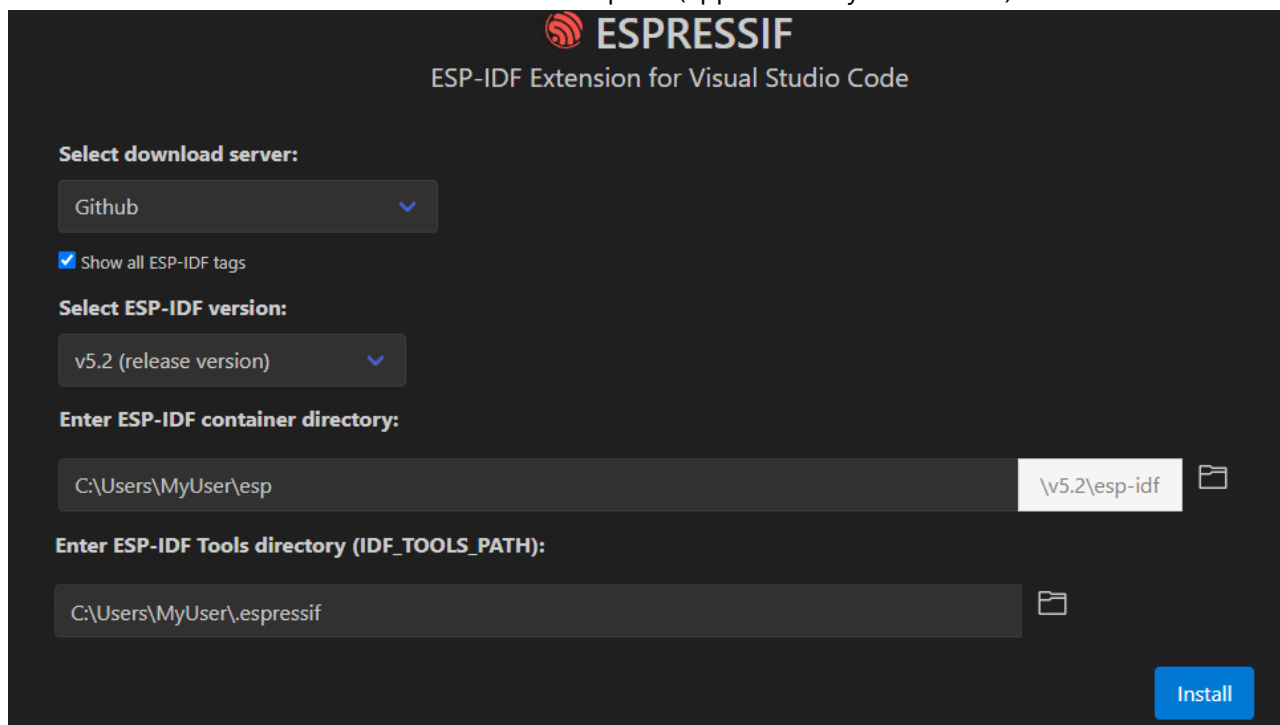
1. Open the ESP-IDF Explorer: Press **F1** in VSCode, type `ESP-IDF: Configure ESP-IDF Extension`, and select it.



2. Select **Express** Setup Mode.



3. Enable the checkbox **Show all ESP-IDF tags**.
4. For **Select ESP-IDF version**, choose version **v5.2 (release version)**.
5. Click "Install" and wait for the installation to complete (approximately 10 minutes).



Status: Visual Studio Code Version 1.95.3, Slint Extension Version v1.8.0, ESP-IDF Extension Version 1.9.0, Visual C++ Redistributable 14.42.34433.0