

1- Install the latest version of the Arduino IDE (Arduino 1.8.5

2-You need to download the contents of the espit-arduino GitHub repository.

3- Now go to Sketchbook in Arduino environment, you can check it by opening Arduino IDE > File > Preferences > Sketchbook Location.

4- Now looking at the sketchbook in My Documents > Arduino, open the guide. You should see a directory of libraries inside.

5- Now create a new directory called Devices. Inside it create another directory called espressif. Inside it create another directory called esp32.

6- Now extract the previously downloaded ESP32 in esp32 directory.

7- Once you are done, check the board.txt, platform.txt, folders, documents, tools, etc. inside the esp32 folder. To compile the ESP32 code, you need to install the Xtensa GNU Compiler Kit (GCC) on your machine. Go to esp32 > tools folder and execute get.exe

8- This executable will download Xtensa GNU Tools and ESP32 SDK, then unzip it to the appropriate location.

9-You should see some new folders in the tools directory, including "sdk" and "xtensa-esp32-elf" once you are done.

10- To make sure that the ESP32 Arduino and ESP32 development board are set up correctly, we will upload the simplest code ever

11- We will be using an LED for this test, the board's D2 pin is connected to a blue LED on the board and can be programmed by the user.

12-Before we can upload the code and run it with the LED we need to make sure the board is correctly selected in the Arduino IDE. Open the Arduino IDE and select the ESP32 Dev Module option under Arduino IDE > Tools > Board menu.

13-Connect the ESP32 development board to the computer via a micro-B USB cable. Once the board is connected, the COM or COM port should be mapped. On Windows machines, this will be like COM#, select this serial port under Arduino IDE > Tools > Port menu. The download speed is also set to 921600 by default. Try lowering it to increase upload speed: 115200 Several users have complained about getting the espcomm_sync failed error when trying to upload the schema to 921600.