

ESP32 Shutter Tester firmware load. V1.1

There is one version of the firmware for the Arduino based shutter tester.

Note:- These guides must be followed in the correct order

ESP32 Installing CP2102 USB Driver

ESP32 Arduino Software Load

ESP32 Firmware Load

Download the code from the github page.

click on the green **<>Code** button, which will allow you to download all of the files as a zip file. Unzip (extract) the downloaded file.

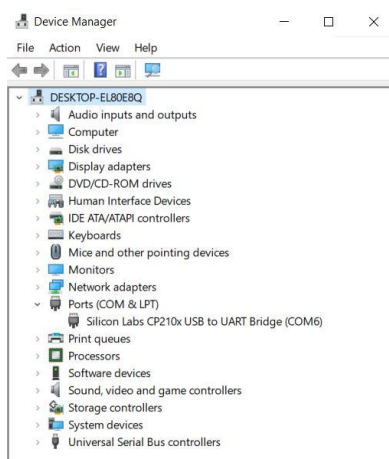
Downloading the Flashing software.

A program called Flash Download Tools is required. This can be downloaded from [Tools | Espressif Systems](#)

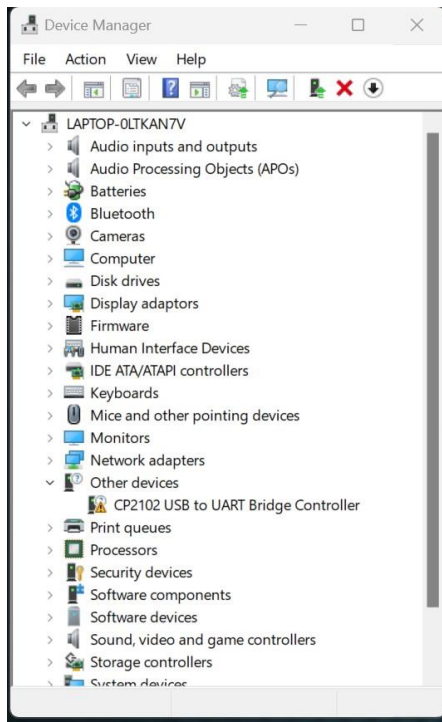
Unzip (extract) the folder and put the files somewhere suitable on the computer. The software is stand-alone and does not need to be installed.

Checking the ESP32 USB driver.

The USB driver should have been installed, following the driver installation guide. To confirm, after connecting the ESP32 board, press Windows key + x and select Device Manager. Look for the COM ports and expand. The ESP module should be seen, as in this example on COM port 6, showing the CP2102 driver.



If the driver is missing, as shown on the screen below **(Yellow Triangle)** refer to the document Installing CP2102 Driver. Found in the github repository.

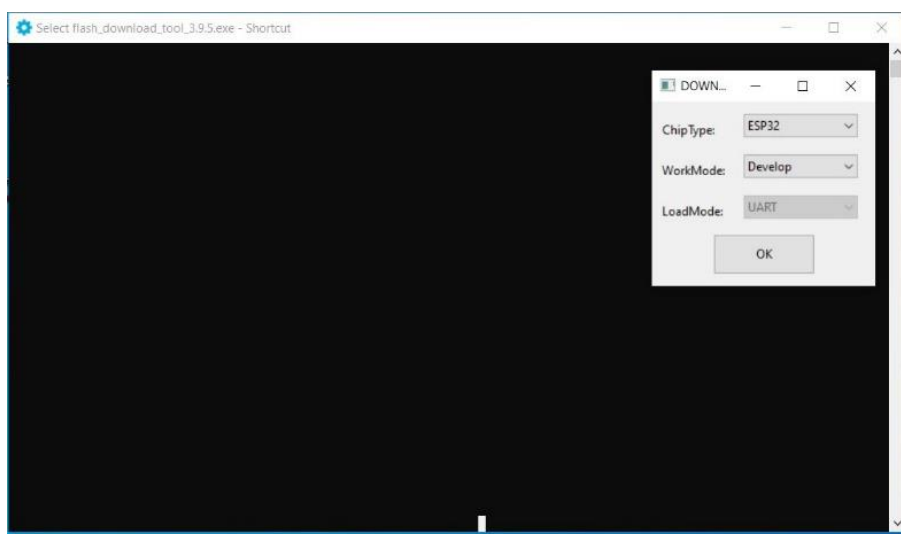


Flash Shutter Tester firmware to ESP32

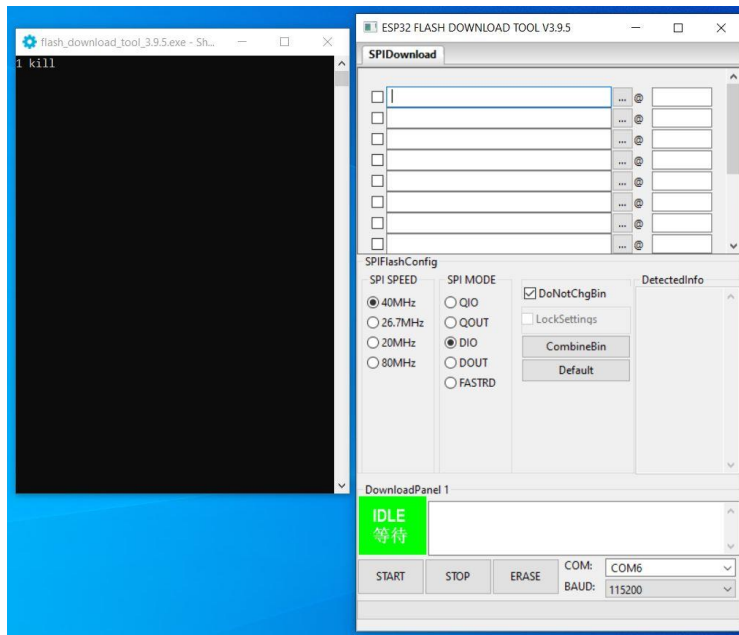
Find the folder where the FLash Download Tool files were extracted to.

Launch the Flash Download Tool by double clicking on 'flash_download_tool_3.9.5.exe'

Select 'ESP32' from the drop-down box, as shown in the screenshot below and click ok.

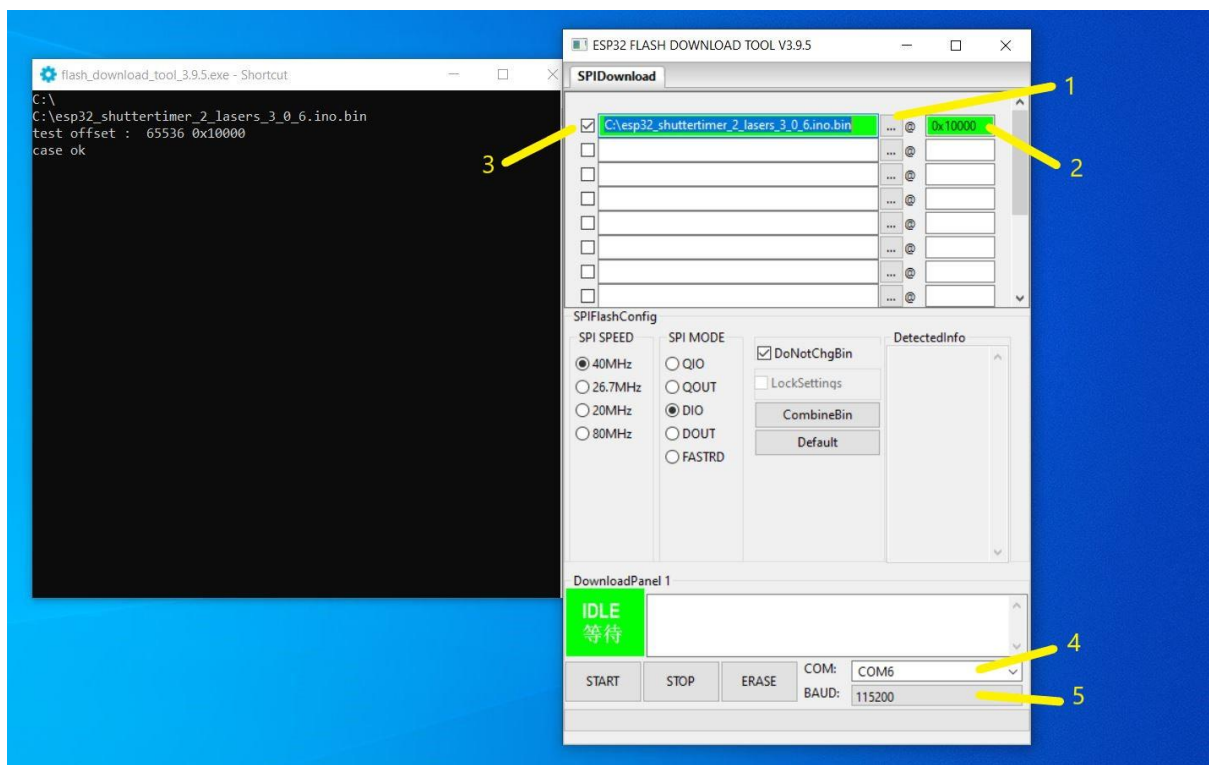


A screen like the below will appear and must now be populated.

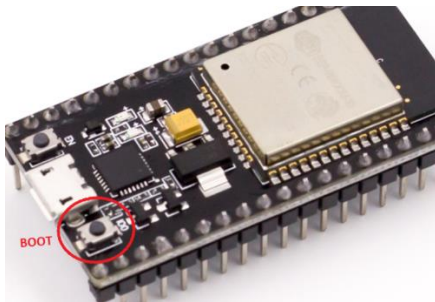


Populate the values as follows

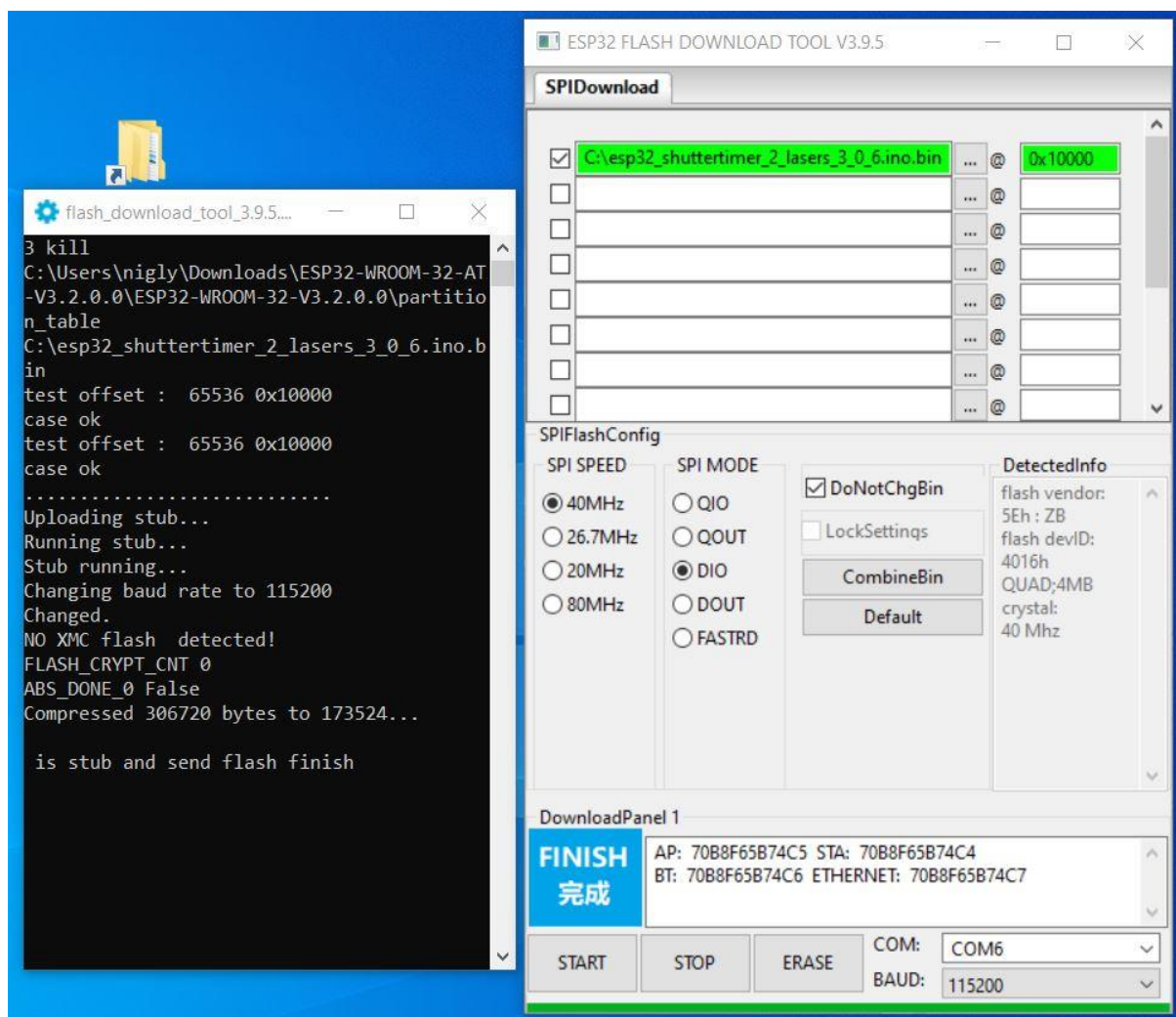
- 1) Click the three dots, navigate to and select the downloaded .bin file download from Github.
- 2) Type 0x10000 into this box. **IMPORTANT ensure there are four zeros after the number 1.**
Double and treble check you have typed 0x10000 (ten thousand)
- 3) Tick this box
- 4) Select the correct COM port from the drop-down box
- 5) Select the baud rate 115200



Now press 'Start' at the bottom left of the box. When a line of dots appears on the black screen, press the Boot button on the ESP32 board for 3 seconds and then release.



If successful, a screen like below should be seen. The Black screen will show the flashing to the device and a blue box should appear in the other screen with 'FINISH'



Note- the flashed code will not start running until the Reset button has been pushed on the ESP32 board, located on the opposite side of the USB connector to the Boot button.

Note:- There is an included file ESP32_blink.ino.bin

This is a simple code that that will flash the LED on the EPS32 board. On for 1 second, off for $\frac{1}{4}$ second. There is no communication to LCD, buttons, TFT.

This file can be loaded onto the ESP32 instead of the main shutter tester code. It can be used for trouble shooting, to prove code is being flashed to the ESP32 correctly. Remember to press the Reset button after flashing any code to the ESP32.