

GitHub repository where all documentation & code can be found. [billbill100 \(github.com\)](https://github.com/billbill100)

## Installing CP2102 or CH340 USB Driver. V1.5 03/11/2024

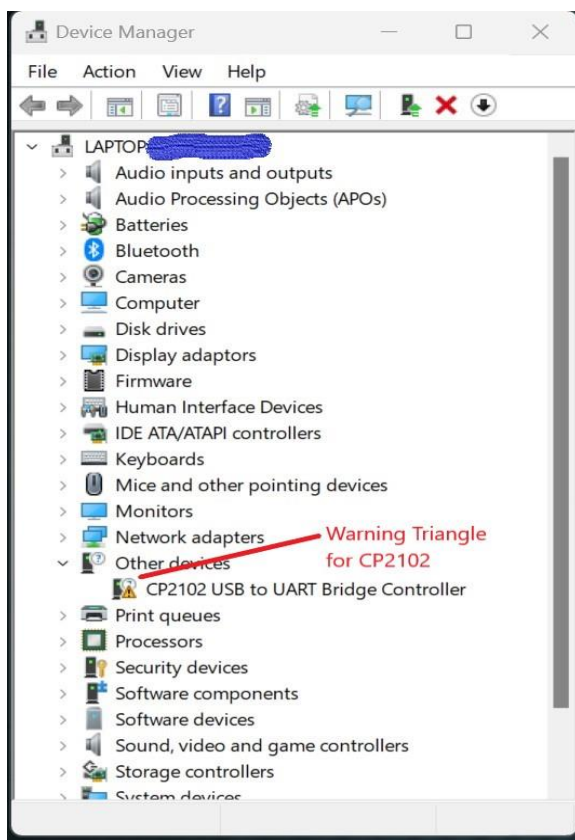
**Note:-** The Lolin D32 board uses the CH340 driver  
The NodeMCU32 board uses the CP2102 driver.

Depending on which Arduino ESP 32 board is used, will depend on which driver needs to be installed on the computer.

Follow the below to see if Windows has the correct driver for your board.

**Connect the ESP32 board** to the computer using a suitable USB cable.

**Open Device Manager** by pressing Windows Key + X and selecting 'Device Manager'



If you see a **yellow ! triangle**, then drivers require installing.

Note:- the Ports (COM & LPT) may need expanding, to see the device.

In this photo, it is a CP2102 driver which is required.

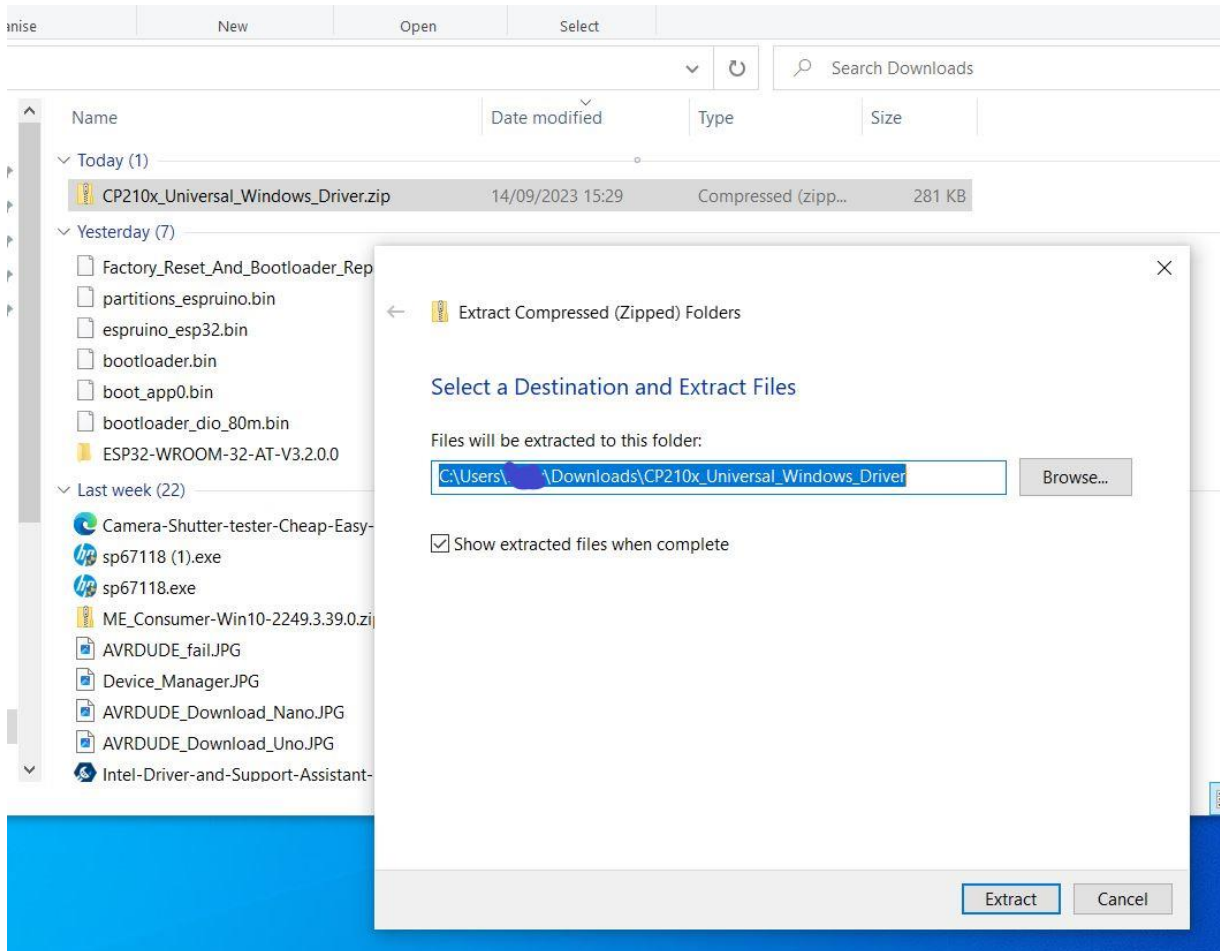
### Step 1,

Download the driver, which can be found in the Github repository.  
Or use the link below for the latest version of the CP210x driver for Windows.

[CP210x USB to UART Bridge VCP Drivers - Silicon Labs \(silabs.com\)](https://www.silabs.com/development-tools/usb-to-uart-bridge-vcp-drivers)

## Step 2,

Navigate to the downloaded file (most likely in Downloads directory) Highlight it by clicking once, then right-click and select 'Extract All' and accept the default directory.



## Step 3,

Go back to Device Manager and right-click on the **Yellow ! Triangle** select 'Update Driver' and then 'Browse my computer for drivers'

Click 'Browse' and navigate to the Downloads folder, find and click on the folder that was previously downloaded & extracted.

Click 'OK' and then 'Next; in the previous box and the drivers should be installed.

A computer re-start will be required to complete installation.

## CH340 Specific Instructions.

Here is a good Youtube video detailing the CH340 driver installation.

If the CH340 driver is not loaded & Windows is not showing an option to automatically install it, follow the link below for a video guide.

[How to Install CH340 Drivers - SparkFun Learn](#)