

I would really be grateful if you start to build the project, that you go to Github and say hi. [billbill100/Weather-Clock: Arduino ESP Weather Clock. Takes time and local weather data from the Internet and displays it on a 3.5" TFT screen \(github.com\)](https://github.com/billbill100/Weather-Clock)

## Installing CH9102, CP2102 or CH340 USB Driver. V1.0 16/09/2024

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

ESP32 Installing USB Driver

ESP32 Arduino IDE Software Load (not required for Development Timer)

ESP32 Firmware Load

ESP32 boards come with a range of USB driver chip. The main there are listed below.

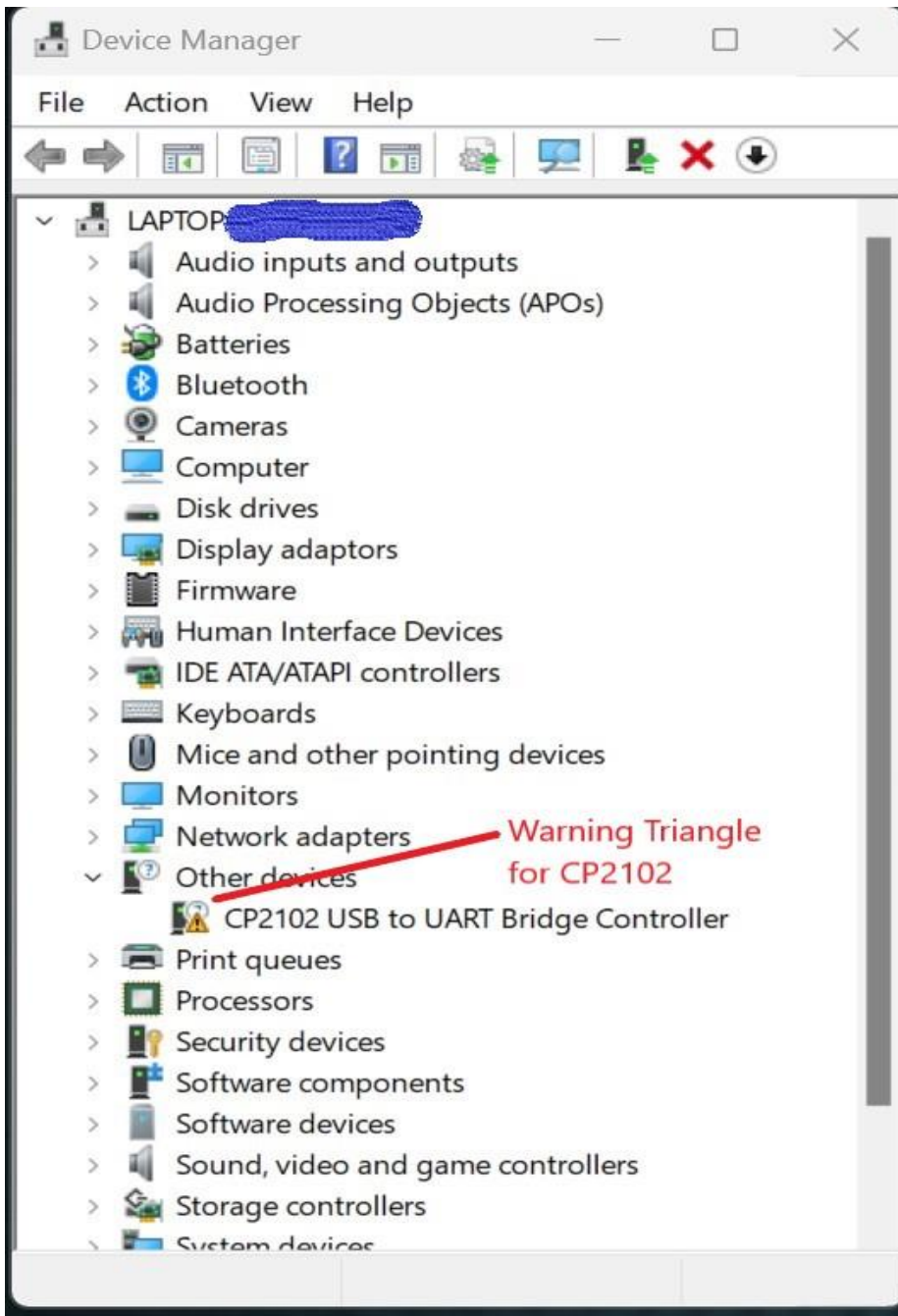
**The CP2102** device driver does not normally come pre-installed on Windows and has to be installed manually.

**The CH9102** device driver does not normally come pre-installed on Windows and has to be installed manually.

**The CH340** driver will normally be installed on a Windows computer. This driver is required if using the Lolin D32 board for the Development timer. Follow the below to see if Windows has the CH340 driver.

**First thing to do is connect the ESP32 board to your computer and see if the driver is installed.**

- 1) **Connect the ESP32 board** to the computer using a suitable USB cable.
- 2) **Open Device Manager** by pressing Windows Key + X and selecting 'Device Manager'
- 3) **Expand either 'other devices' or 'Ports (COM & LPT)** and look for the connected USB device.



If you see a **yellow ! triangle** labelled CP2102 or CH9102 or CH340, then drivers require installing.

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

### CH340 Specific Instructions.

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](#)

### CH9102 Specific Instructions.

[Overview | How To Install Drivers for WCH CH9102F USB to Serial Chips | Adafruit Learning System](#)

## CP2102 Specific Instructions.

### Step 1,

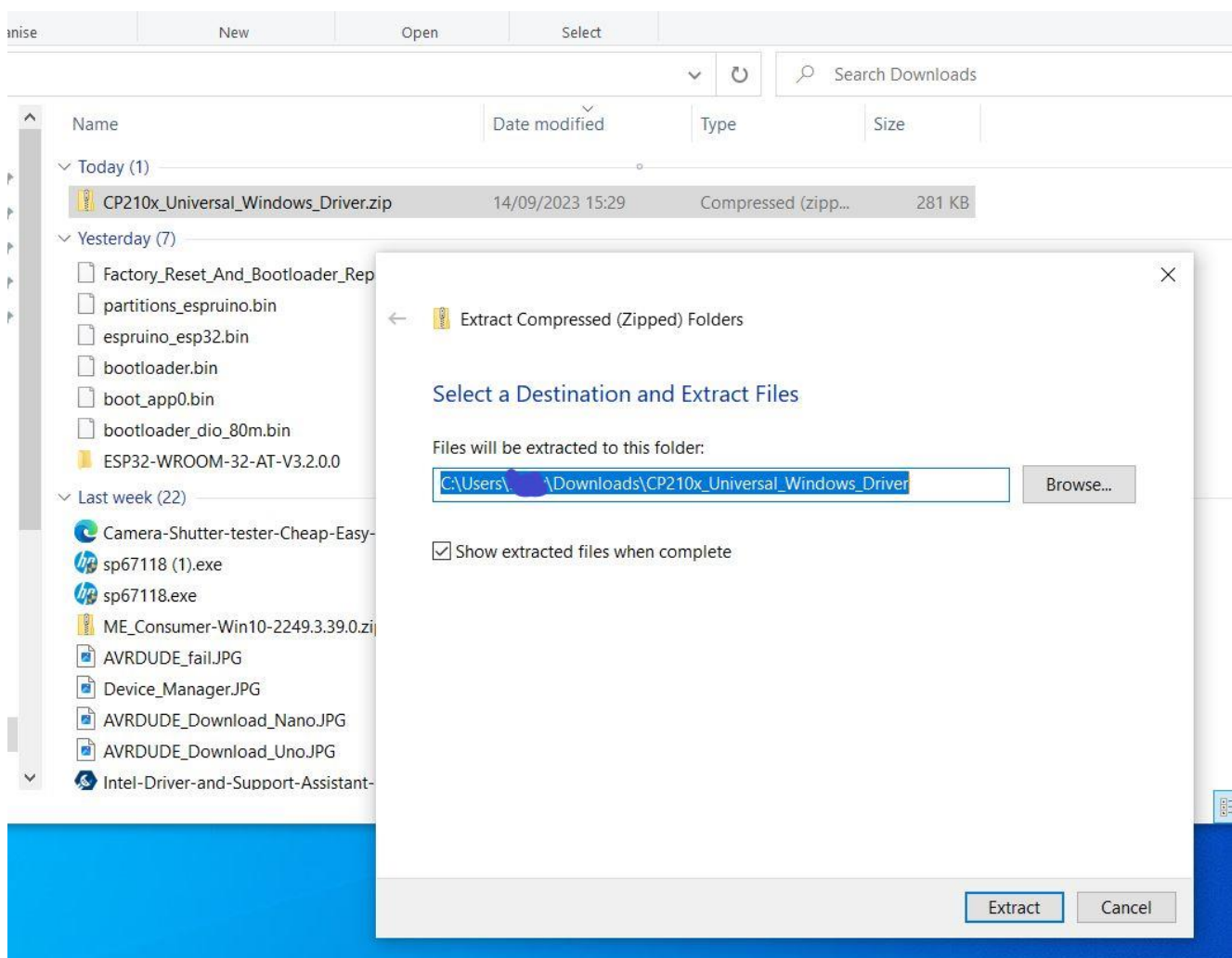
Download the drivers from the link below.

For Windows users, select the top one, CP210x Universal Windows Driver

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

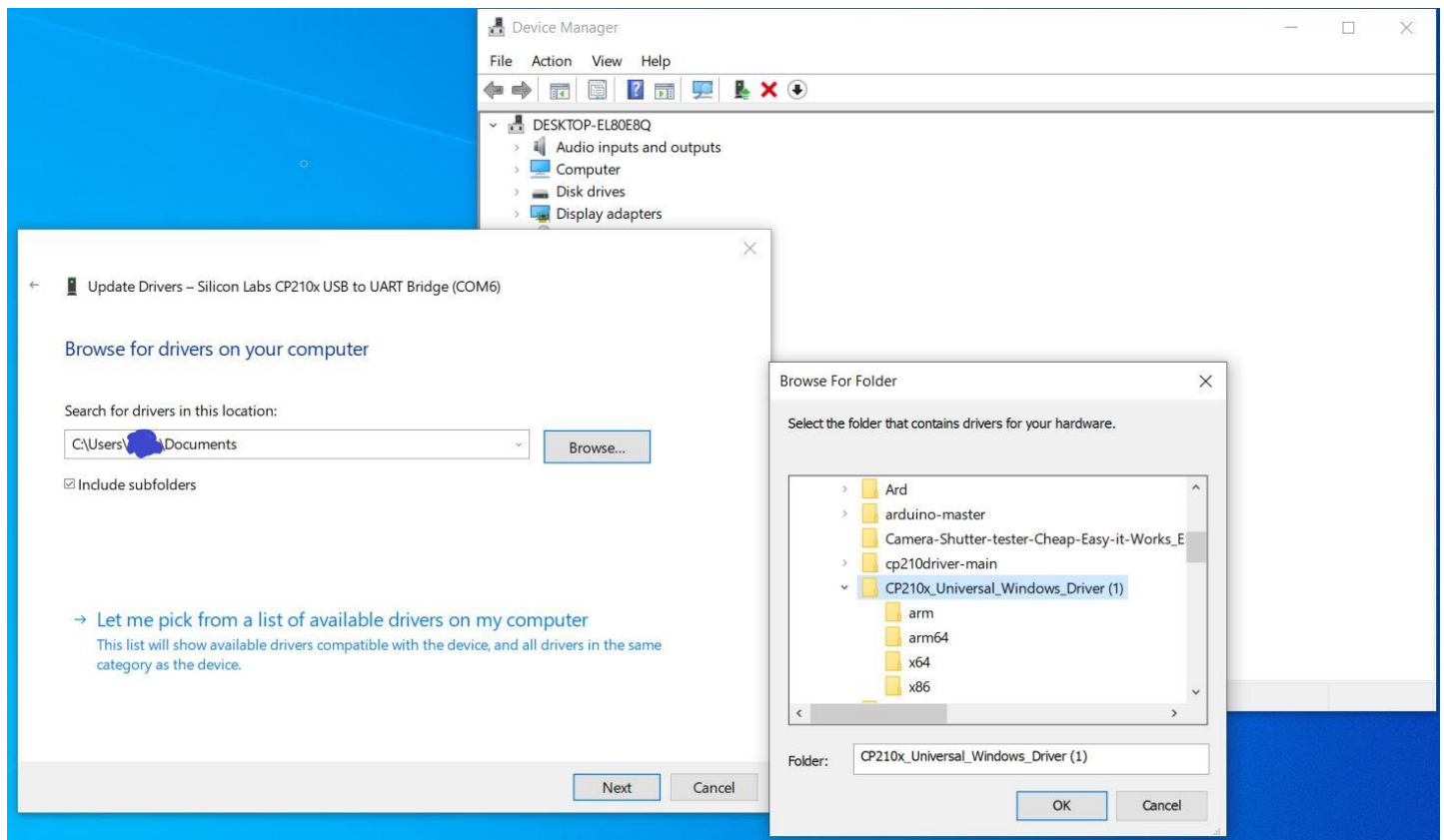
### Step 2,

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.