

# SETTING UP SONY SPRESENSE BOARD

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A Sony Spresense Board can be set up in 4 steps:

## **FIRST STEP:**

- ()On Desktop, Create an Spresense folder.
  - ()Use Micro USB Data cable and connect it to the Main Spresense board.
  - ()Check if the Spresense pops up in the "**Other devices**" in the **Device Manager**.
  - ()Precaution, the cable should be a Micro USB data cable and not a charge only cable. If the Spresense board doesn't pop up in the "**Other devices**" section in the **Device Manager**, then it means that the cable is a charge only cable. Find a data cable and then use it with Spresense.
  - ()Driver would be found in "Other devices" section, but it will have a precaution sign. This just means that the drivers for the device are not installed.
  - ()So we would download this driver into the Spresense folder from the following link:  
[https://github.com/nnilayy/sony-spresense/blob/main/CP210x Universal Windows Driver.zip](https://github.com/nnilayy/sony-spresense/blob/main/CP210x%20Universal%20Windows%20Driver.zip)
  - ()Unzip the drivers in the Spresense folder.
  - ()Now go back to Device manager, Select the Spresense device, And then click on Add Drivers, browse to the unzipped folder, and that's it, select next.
  - ()Spresense will now show up in the "**Ports (COM & LPT)**", along with a port number.
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## **SECOND STEP:**

- ()Now Download the binaries zip folder into the Spresense folder from the following link:  
<https://developer.sony.com/file/download/download-spresense-firmware-v2-4-000>
  - ()Then Download the flash\_writer file into the Spresense folder from the following link:  
[https://github.com/sonydevworld/spresense/blob/master/sdk/tools/windows/flash\\_writer.exe](https://github.com/sonydevworld/spresense/blob/master/sdk/tools/windows/flash_writer.exe)
  - ()cd to Desktop by running the following in terminal:  
**cd Desktop\Spresense**
  - (5)Now Run the following in terminal to unzip the binaries folder contents.  
**powershell expand-archive spresense-binaries-v2.4.0.zip .**
  - (6)Now run the following to flash the bootloader with your port number(Mine was COM5).  
**./flash\_writer.exe -s -c COM5 -b 115200 -d -n "./loader.espk" "./gnssfw.espk" "./dnnrt-mp.espk" "  
"./AESM.espk" "./sysutil.espk"**
  - ()Congratulations!! With this you would have flashed your Sony Spresense board.
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## **THIRD STEP:**

- ()Now all that's left is to flash the board with Circuit Python.
  - ()So from circuit python, download the stable .spk file into the Spresense folder from the following link: <https://circuitpython.org/board/spresense/>
  - ()Rename the file to "downloaded.espk"
  - ()After renaming the file, run the following in the terminal:  
**./flash\_writer.exe -s -c COM5 -b 115200 -d -n "./downloaded.espk"**
  - ()Congratulations!! With this you would have flashed your Sony Spresense board with circuit python.
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## **FOURTH STEP:**

- ()In the End, move the USB data cable from **Main Board** to the **Extension Board**.
- ()And wait for 5 seconds, then press the Reset button on the **Main Board**.

()And Voila, you will have a CIRCUITPY device in your PC.

()Congratulations!!! Now you can run your Circuit python code on Spresense

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# **PRECAUTIONS**

Only pitfalls that anyone will have will be due to following two reasons

**(1)Improper USB cable:** If you have a charge only cable the Sony Spresense board will not show up in Device Manager, that's why its important to have a Data USB Cable.

**(2)Installing Wrong Drivers:** Installing the wrong drivers won't create a problem in the First stage, but whilst flashing the Spresense Board, the board wouldn't flash due to wrong drivers. That's why its important to download the right and updated drivers.

But also if any problem arises later in the future in the setup, it will be due to the two reasons given above.