



Quick Start Flashing Guide

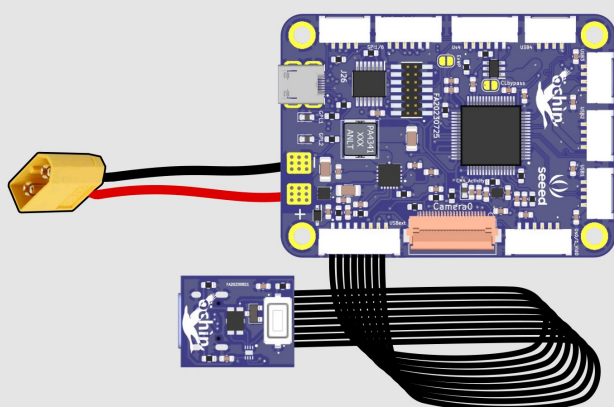
Flash a Raspberry Pi CM4 from the ochin_CM4v2 board

What do you need to flash the Raspberry Pi CM4:

1) ochin_CM4v2 board - 2) Raspberry Pi CM4 with eMMC - 3) USB Type-C data cable - 4) 7.5V to 28V 2A/h battery or power supply - 5) PC with rpiboot and Raspberry Pi Imager softwares - 6) Raspberry Pi image file

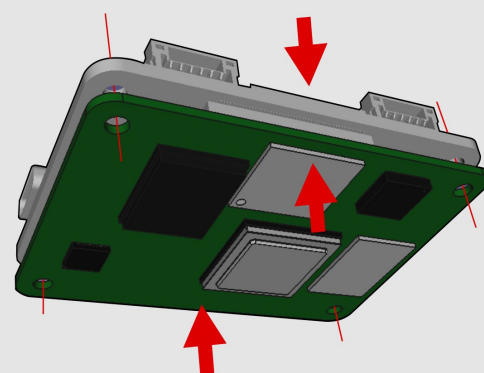
1) Connect the Power Supply cables

Solder the red and black cables to the power pads as shown in the following picture. It's also suggested to use an XT30/60 connector to be able to disconnect the ochin_CM4v2 board from the Power Supply. The VBUS of the USB Type-C is not able to power on the board, don't try to power it on via USB.



2) Mount the Raspberry Pi CM4

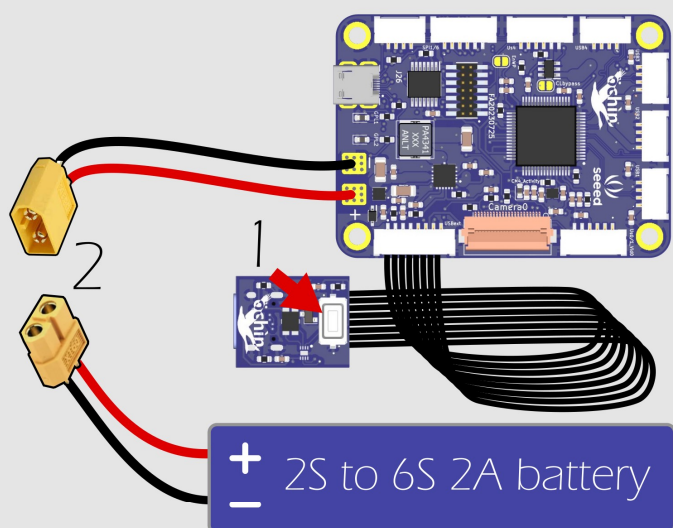
Gently place the Raspberry Pi CM4 module on the back of the ochin_CM4v2 board. Check that the two boards are aligned and the mezzanines are paired. Press the two boards together near the mezzanines, on both sides at the same time, until they are locked together.



3) Power up the boards

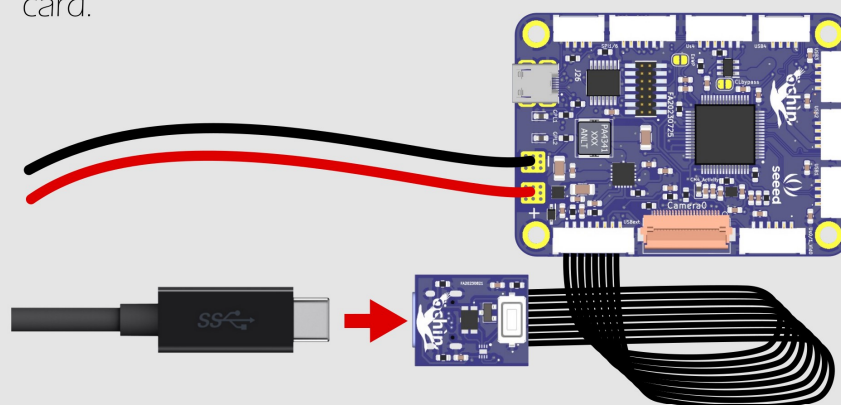
To start the Raspberry pi CM4 in "device" mode, accessible to flash the eMMC, do the following:

- 1) Press the S1 button on the external tiny board
- 2) Keeping the button pressed, connect the power supply. Then release the button.



4) Connect the CM4 to the PC

Plug an USB Type-C data cable between the ochin_CM4v2 and the PC (you should hear the sound but you don't see any device connected). Launch the official "rpiboot" software. After the drivers are loaded you should see a new memory device connected. You will have to flash the Raspberry Pi image file to this new memory device, as it would be a micro sd card.



5) Flash the eMMC

At this point the CM4 module is powered, connected to the PC and the drivers have been loaded, it is then seen by the PC as a memory device. To flash the image you have to proceed as you usually do with the microsd used for the other Raspberry Pi models. The best way is to use the official "Raspberry Pi Imager" software that allows you to load the desired image and preset the login credentials, the WiFi connection and other useful parameters.

Once the Raspberry Pi CM4 image has been flashed to the eMMC it is possible to reboot the board and start the OS. Since the USB Vbus it is used to switch the bus between the USB type-C port and the USB HUB, it is important that the USB type-C cable is removed from the board after the flash of the eMMC.

On the Raspberry Pi CM4 the USB is disabled by default. In order to use the USB bus it is necessary to enable it inside of the "boot/config.txt" file, adding the following line at the end:

```
dtoverlay=dwc2,dr_mode=host
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