



Quick Start Flashing Guide

Flash a Raspberry Pi CM4 from the ochin_CM4v2 board

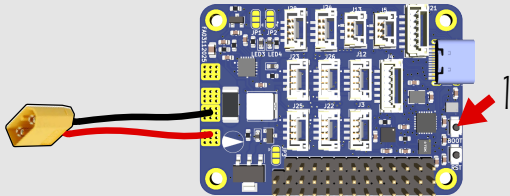
What do you need to flash the ochin_stm32h743:

- 1) ochin_stm32h743 board
- 2) USB Type-C data cable
- 3) PC with STM32 Cube Programmer
- 4) the firmware binary file

USB power method (recommended)

Step 1 – Enter BOOT mode

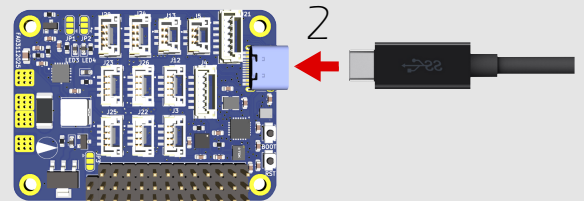
With the board completely unpowered, press and hold the BOOT button (indicated by the arrow in the diagram). This forces the STM32 bootloader selection at startup.



USB power method (recommended)

Step 2 – Connect USB-CT

While still holding the BOOT button, plug in the USB-C cable. The board will power up through USB and the microcontroller will start directly in DFU (Device Firmware Upgrade) mode, ready for flashing.

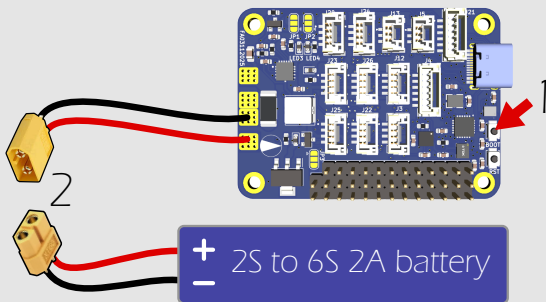


OR

External power method

Step 1 – Hold BOOT then Power the board in DFU mode

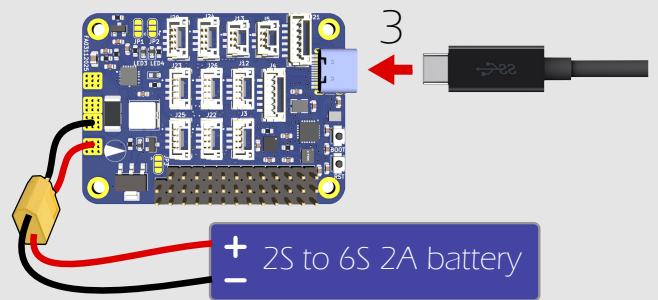
Press and hold the BOOT button while the system is still unpowered. While keeping BOOT pressed, connect the external power source (e.g. battery). This forces the STM32 bootloader selection at startup.



External power method

Step 2 – Connect USB-C for flashing

Once the device is already running in DFU mode, connect the USB-C cable. The USB interface will then be used only for data communication, allowing the system to be detected by the flashing tool and programmed.



3) Flashing procedure using STM32CubeProgrammer (DFU mode)

- Step 1 – Open STM32CubeProgrammer and select the USB (DFU) interface to prepare the software for communicating with the microcontroller already running in DFU mode.
- Step 2 – Click Connect to initiate the connection and allow the tool to properly identify the STM32 device and its memory configuration.
- Step 3 – Load the firmware file in .bin or .hex format, ensuring it corresponds to the correct target board and memory layout.
- Step 4 – If required by the firmware, configure the start address (typically 0x08000000 for internal flash memory).
- Step 5 – Start the flashing process by clicking Start Programming, then wait while the firmware is written to the microcontroller flash memory.
- Step 6 – Once programming is complete, optionally verify the flashed image, then safely disconnect the device and reboot the board to run the new firmware.