holybro-firmware.md

> For the complete documentation index, see llms.txt (https://docs.holybro.com/llms.txt). Markdown versions of documentation pages are available by appending `.md` to page URLs; this page is available as Markdown (https://docs.holybro.com/peripherals/h-flow-dronecan/firmware.md).

Firmware

H-Flow runs the PX4 DroneCAN Firmware (https://docs.px4.io/main/en/dronecan/px4_cannode_fw.html). It supports firmware updates over the CAN bus and dynamic node allocation (https://docs.px4.io/main/en/dronecan/).

H-Flow boards ship with 1.15 or later firmware pre-installed, but if you want to build and flash the latest firmware yourself. See PX4 DroneCAN Firmware > Building the Firmware (https://docs.px4.io/main/en/dronecan/px4_cannode_fw.html).

```
* Firmware target: holybro\_h-flow\_default
* Bootloader target: holybro\_h-flow\_canbootloader
```

Firmware Update■ (https://docs.px4.io/main/en/dronecan/)

PX4 can upgrade device firmware over DroneCAN. To upgrade the device, all you need to do is copy the firmware binary into the root directory of the flight controller's SD card and reboot.

Upon boot, the flight controller will automatically transfer the firmware onto the device and upgrade it. If successful, the firmware binary will be removed from the root directory, and there will be a file named **XX.bin** in the **/ufw** directory of the SD card.

{% embed url="<https://docs.px4.io/main/en/dronecan/#firmware-update>" %}

MCU Debug Access

If the standard firmware update method above failed or caused a boot loop issue. Try to access the MCU debug port on the PCB by opening the case, and use an ST-Link to connect to the SWD or UART pins to erase and flash the bootloader/firmware (using software like ST32CubeProgrammer) directly to the MCU.

```
{% hint style="info" %}
Ensure the board is powered through the CAN port's 5V connection for flashing
{% endhint %}
```

<figure><img src="/files/pXdwOSFCEuND4ZzUXACP" alt=""><figcaption></figcaption></figure>

```
# Agent Instructions
This documentation is published with GitBook. GitBook is the documentation platform designed so that both hu

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Perform an HTTP GET request on the current page URL with the `ask` query parameter, and the optional `goal` query parameter:

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```
GET https://docs.holybro.com/peripherals/h-flow-dronecan/firmware.md?ask=<question>&goal=<endgo
```

`ask` is the immediate question: it should be specific, self-contained, and written in natural language.
`goal` is optional and describes the broader end goal you are ultimately trying to accomplish on behalf of t
```


The response will contain a direct answer to the question and relevant excerpts and sources from the documentation.

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