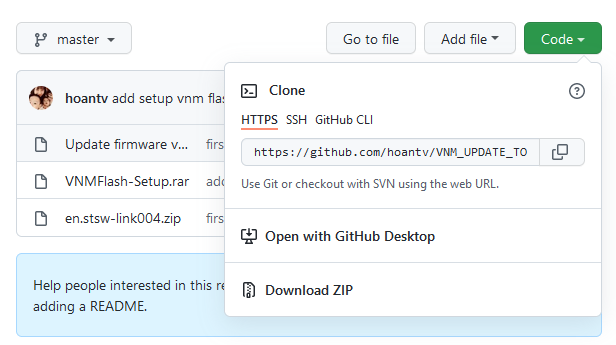
1. **Download Update tools from**

<https://vnmsimulation.com/download>

click download ZIP



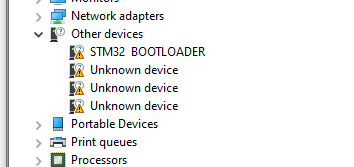
1. **Enable DFU Mode for VNM products**

* There are few type to enable DFU mode for VNM products.

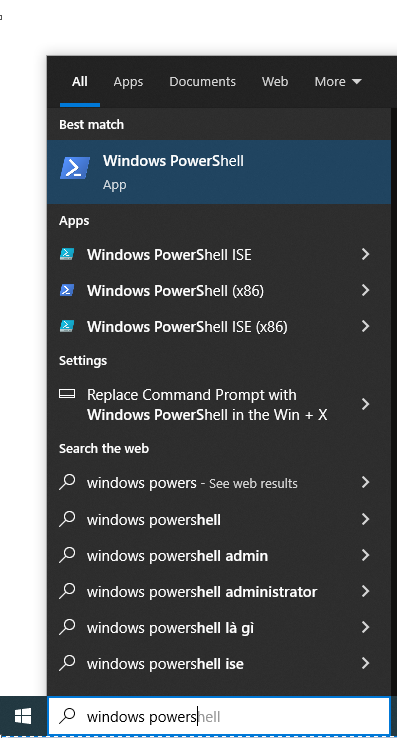
+ If it is a button (on the back of shifter, on the side of a handbrake): Push it and let it in high state, reconnect usb cable.

+ If it is a switch (on the back of shifter, on the side of a handbrake, on the pedal box, ffb controller box): toggle switch to DFU and reconnect usb cable.

* You will see an unknown device STM32 BOOTLOADER like is (it can be in other group device)

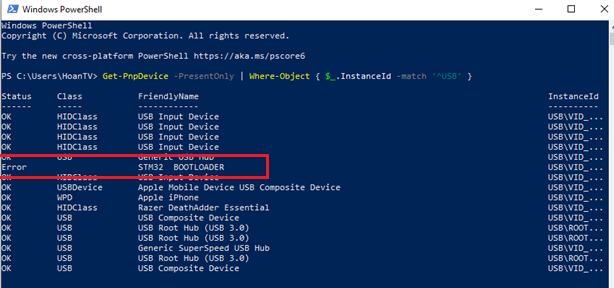


* To find it easier, use PowerShell:



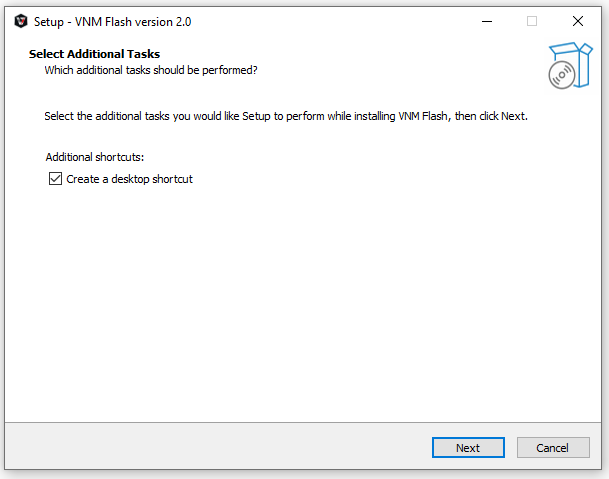
Type: Get-PnpDevice -PresentOnly | Where-Object { $\_.InstanceId -match '^USB' }

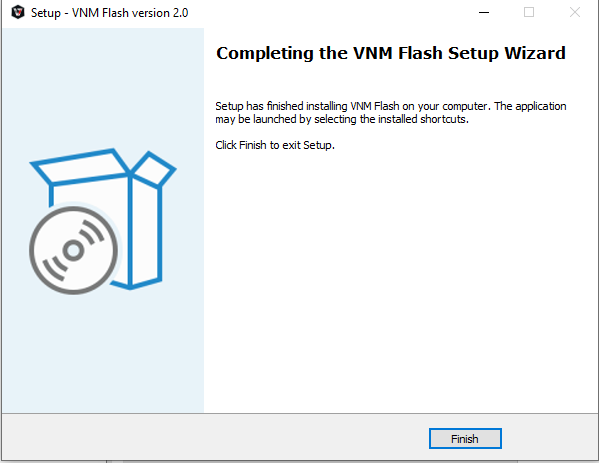
It will show STM32 BOOTLOADER with status “Error”



1. **Install software and driver**

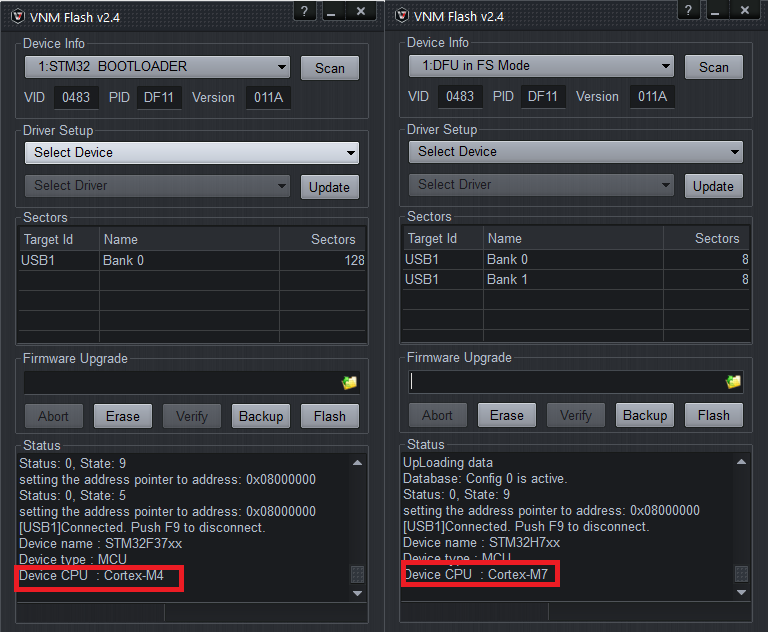
Open downloaded ZIP file -> open VNMFLASH-Setup.rar -> click Setup.exe and do as following:



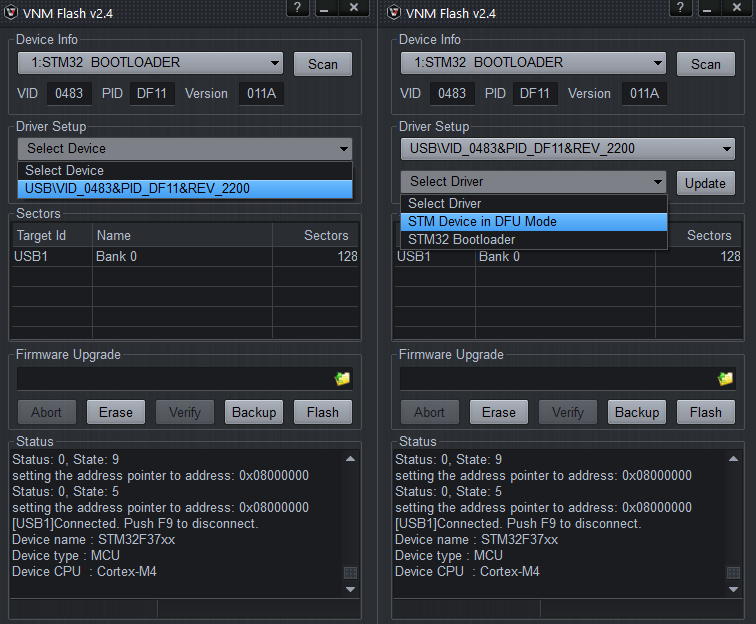


1. **Choose DFU driver**

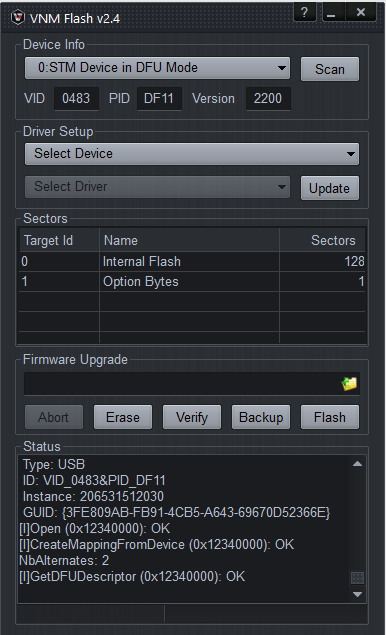
Run as administrator VNM Flash. Base on what type of device it will show difference device info. If MCU is Cortex-M4, it will show “STM32 BOOLOADER”, if MCU is Cortex-M7, it will show DFU in FS Mode.



If MCU isn’t Cortex-M7, do this step: in Driver Setup, select a device that show in the select device combo box, select “STM32 Device in DFU Mode” in select driver combo box, click update.

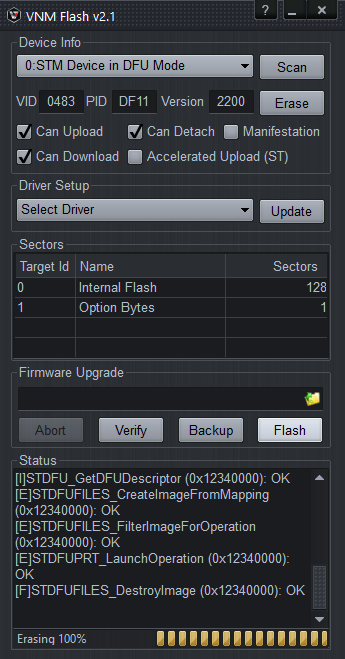


After in the console log shows “Drivers installed successfully. Please replug your device!” => reconnect device and now you can upgrade a firmware for the device

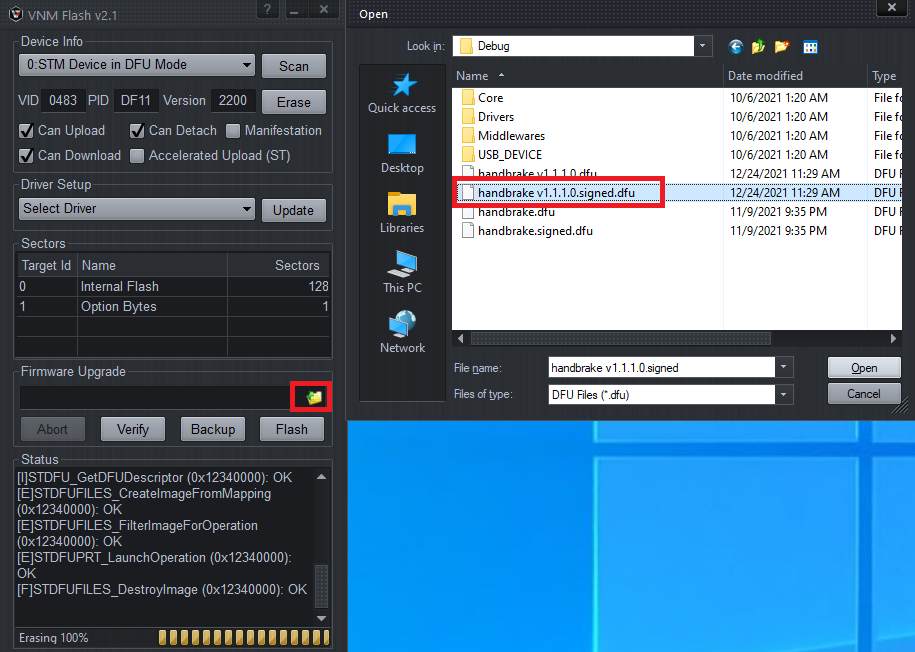


1. **Upload firmware**

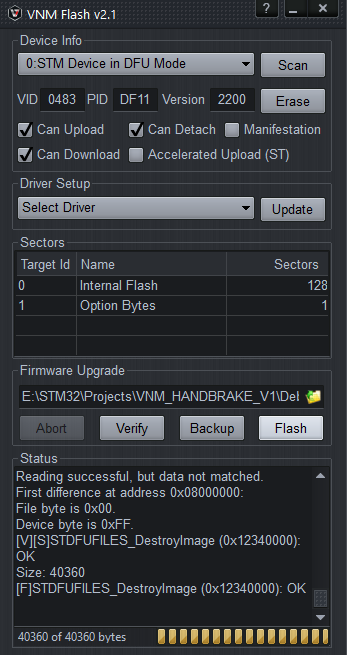
* Click Erase firmware



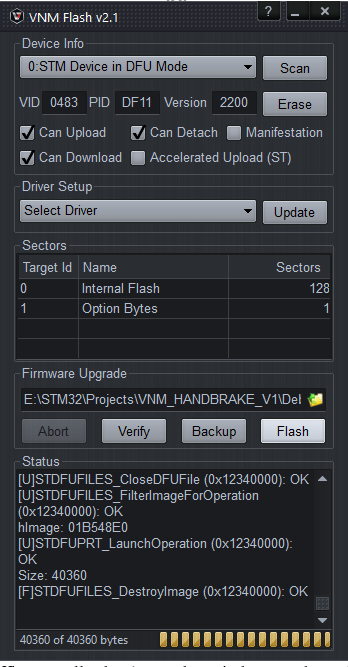
Browse to a firmware file which you want to install. The file name must contain “signed.dfu”.



Click “Verify”, if result is OK, the firmware file is good.



Click “Flash” and wait until it load to the device.



1. **Get out of DFU mode**

Rollback the step 2

+ If it is a button (on the back of shifter, on the side of a handbrake): Push it and let it in low state, reconnect usb cable.

+ If it is a switch (on the back of shifter, on the side of a handbrake, on the pedal box, ffb controller box): toggle switch to work mode and reconnect usb cable.

Now finish 😊!