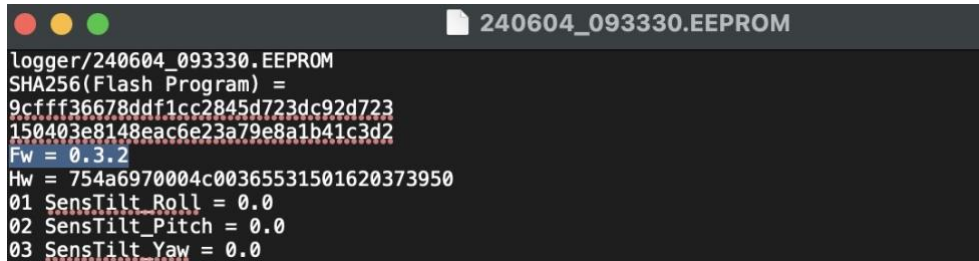


LARUS STM Update

Which firmware version is currently installed on LARUS?

Option 1: Open the “Device Info” page on the Vario Display

Option 2: Remove the SD card from the LARUS Sensor Box and insert it into a computer. Then open the latest EEPROM file, which was saved in the folder “logger” or “EEPROM”, using a text editor. The line “Fw” indicates the currently installed version.



```
240604_093330.EEPROM
logger/240604_093330.EEPROM
SHA256(Flash Program) =
9cfff36678ddf1cc2845d723dc92d723
150403e8148eac6e23a79e8a1b41c3d2
Fw = 0.3.2
Hw = 754a6970004c00365531501620373950
01 SensTilt_Roll = 0.0
02 SensTilt_Pitch = 0.0
03 SensTilt_Yaw = 0.0
```

Where can I find the files for a software update?

New software versions are published here: https://github.com/larus-breeze/sw_sensor/releases

Convenient firmware update via SD card

If firmware version 0.3.1 or newer is already installed on the LARUS, the update can be carried out as follows:

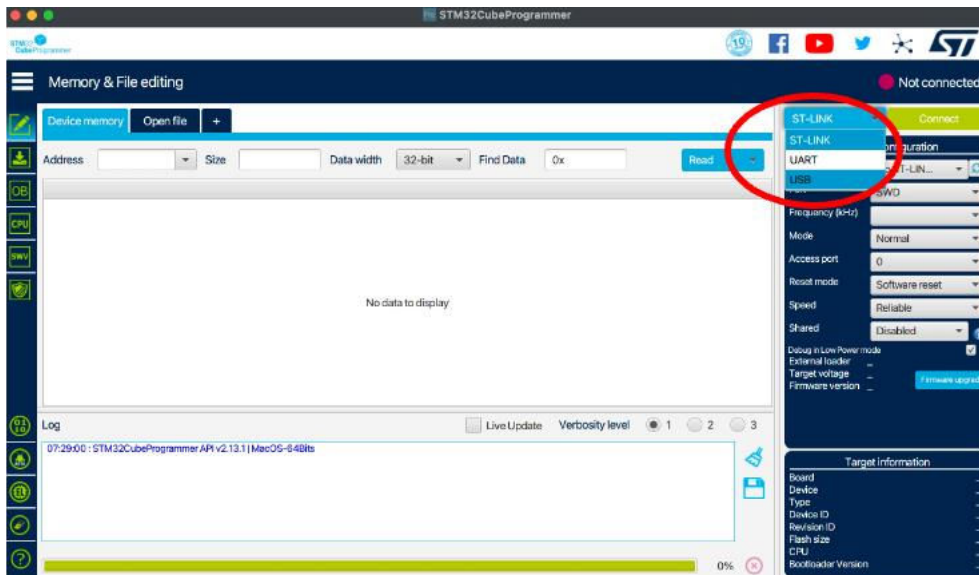
- Download larus_sensor.....bin file from github
- Copy this bin file to the LARUS SD card in the top folder
- Insert the SD card into the Larus box and start Larus
- The update installs itself within 10 seconds and the bin file on the SD card is automatically renamed to bin.USED

Firmware update via an external computer and STM32CubeProgrammer

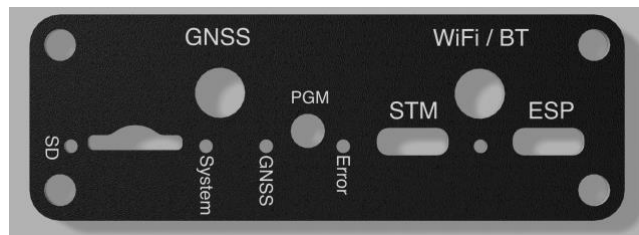
If the update is starting from firmware version 0.2.3 or older or a firmware update via SD card was not successful, please follow the steps below:

Preparations: Install the program STM32CubeProgrammer on a computer (ideally a laptop). The software can be downloaded here: <https://www.st.com/en/development-tools/stm32cubeprog.html> (E-mail address will be requested). Furthermore, a USB cable is required to connect the computer to the USB-C “STM” socket of the LARUS.

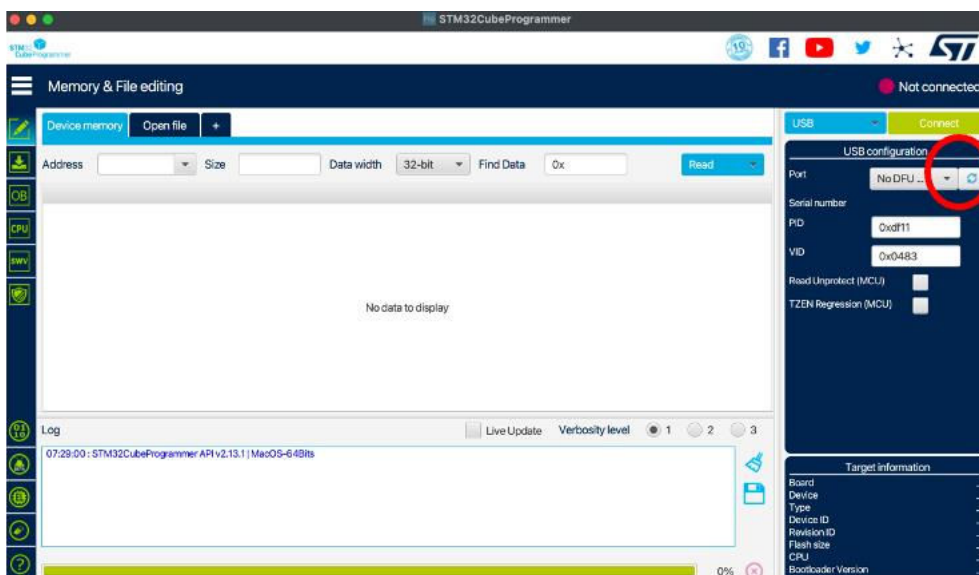
Step 1: Open the STM32CubeProgrammer program, select USB:



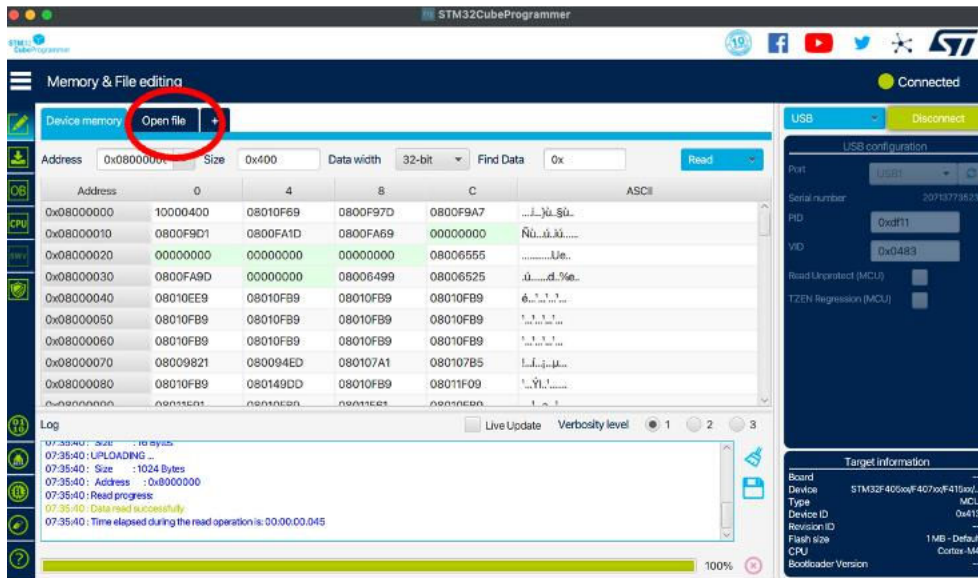
Step 2: Disconnect all RJ45 cables from the LARUS. Check that all LEDs on the LARUS are off (the device is not powered). Press and hold the “RST” / “PGM” button on the LARUS front and then plug the USB cable that is already connected to the laptop into the “STM” USB-C socket of the LARUS.



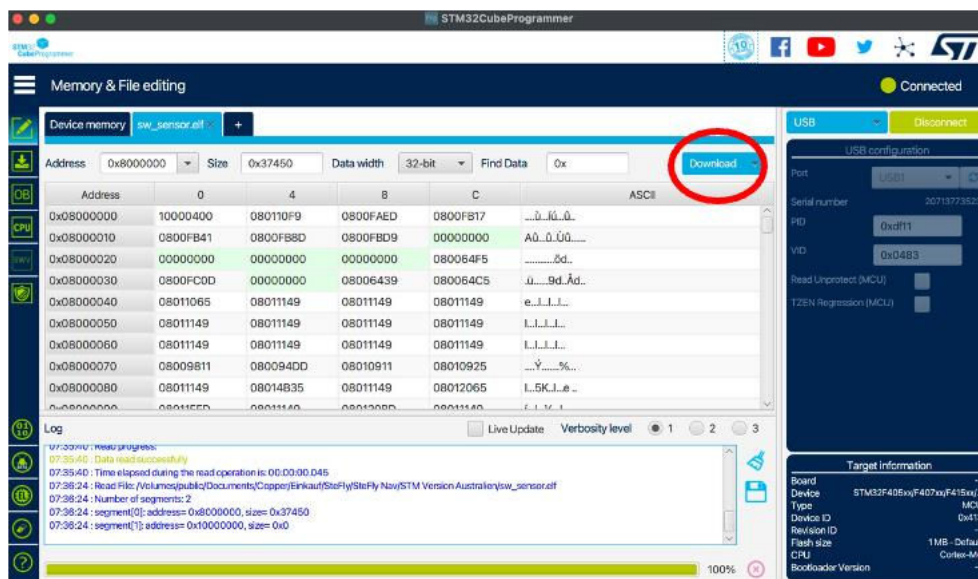
Step 3: Click on the update symbol. The port will be automatically selected (e.g. USB1):



Step 4: Click on “Open file” and select the update file (download from https://github.com/larus-breeze/sw_sensor/releases ; file extension .elf), click on open:



Step 5: Click on “Download” and wait until the message “file download complete” appears

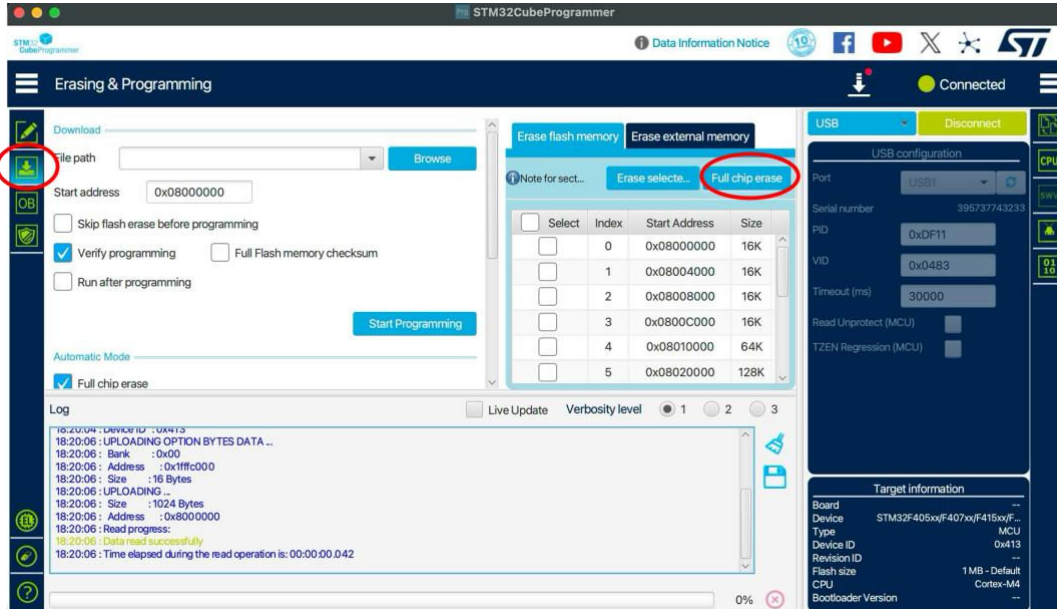


Step 6: Disconnect the USB-C cable from the laptop. Then connect LARUS to external devices again, as before the update, using the RJ45 cables and then boot up the systems. As soon as LARUS receives sufficient GNSS signals (hence leaving the hangar), the blue control LED starts flashing and data is transmitted to the Vario Display.

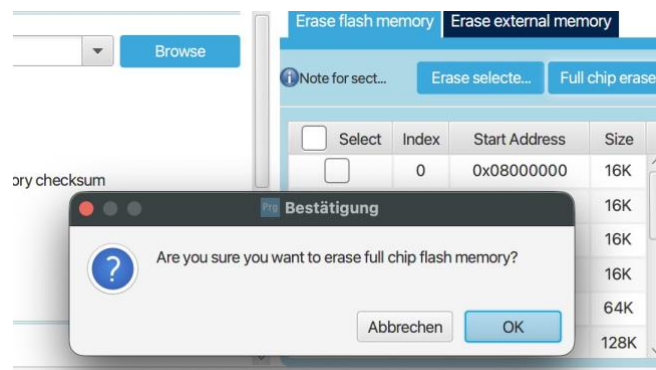
Full Chip Erase via STM32CubeProgrammer

If you need to completely reset the STM32 in the LARUS Sensor Box, follow these steps:

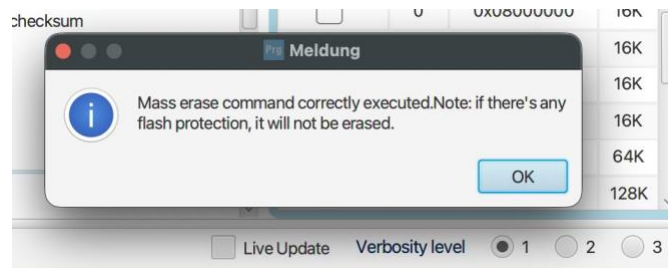
1. Follow steps 1–3 above
2. Click the icon for the “Erasing & Programming” category in the left sidebar



3. Next, click “Full chip erase” and confirm the warning:



4. After about 30 seconds, a success message appears



5. Now, install a new .elf file as described above starting from **Step 4**. Future firmware updates can be installed as usual using a .bin file on the SD card.