

How can I upgrade the MCU Firmware on Laser air+

In the occasion you want to make use of RS232 communication with our touch screens and you want to make use of the latest added commands, you need to upgrade the MCU firmware. Since the MCU firmware works in close cooperation with the main firmware, it is mandatory to also upgrade the main firmware of the touch screen.

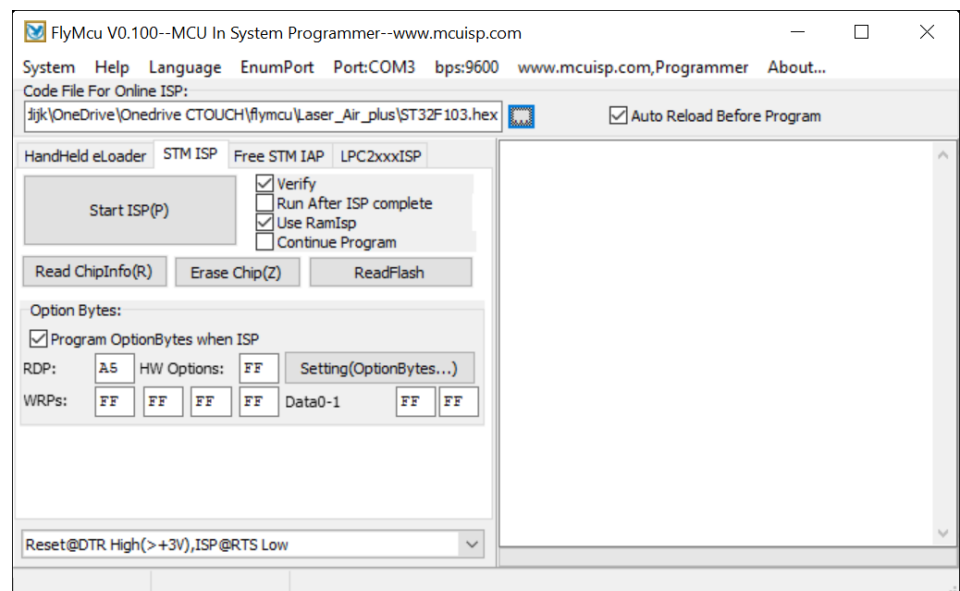
WARNING! Firmware Update is a responsible operation, during which control software of the Device will be changed. In case of improper execution control program may be damaged and will require treatment in the service center. Please perform the upgrade procedure in accordance with the instructions below.

Required:

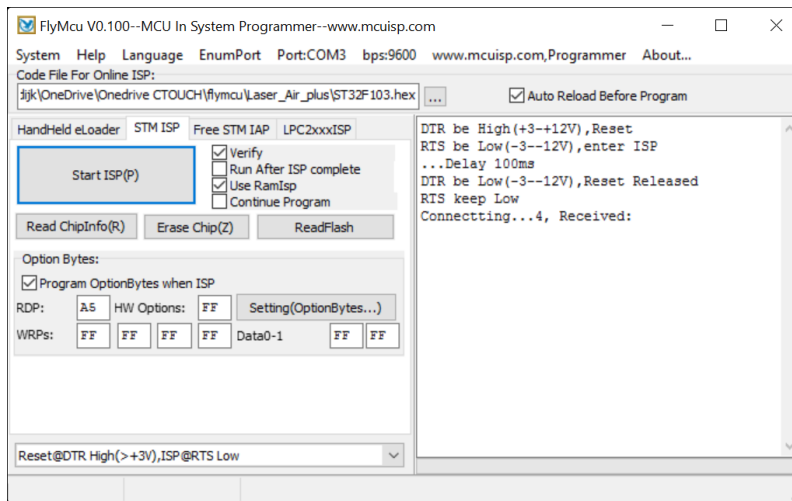
- USB to RS232 Cable TIP: <https://docklight.de/information/#docklight-RS232-Adapter>
- Windows Laptop
- FlyMCU Software
- ST32F103.hex File

Preparation:

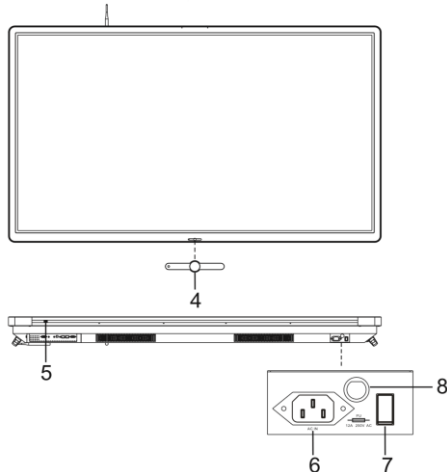
1. Shut down the CTOUCH Laser air+ and power off via **Power switch (7)**
2. Connect the CTOUCH Laser air+ and Windows Laptop with the USB to RS232 cable.
3. Startup Fly MCU executable on your Windows laptop
4. Verify that both the “Port” and “bps” are set to the correct values. *The “Port” must correspond with the COM address the “RS232 to USB” cable identifies as. The bps should be set to the baud rate used by CTOUCH Laser air+. This would be 9600 out of the box.*
5. Press the “Browse” button next to the “Code File For Online ISP” field.
6. Browse to the “ST32F103.hex” file and open this. You should now have the correct file selected. *The window should now show the correct path in the “Code File For Online ISP:”*



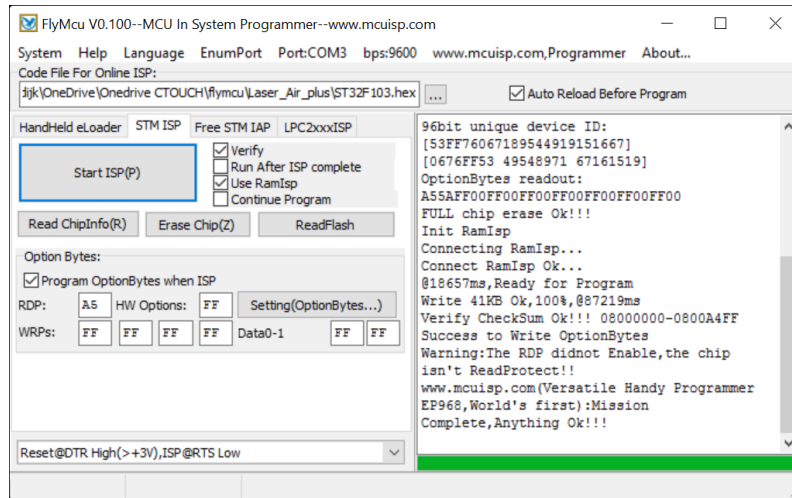
7. Press “Start ISP(P)” The window should now show it is awaiting a pending connection like shown below.



8. Hold the **Standby button (4)** on the CTOUCH Laser air+ and switch the **Power switch (7)** on.



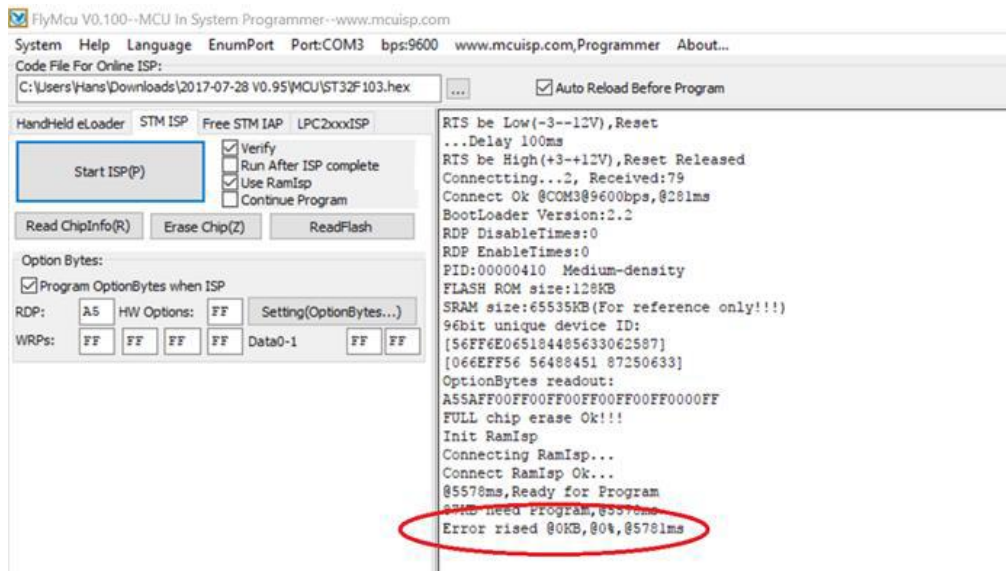
9. When you have done this correctly and within a timely fashion you will see progress on the FlyMCU window until complete like shown below.



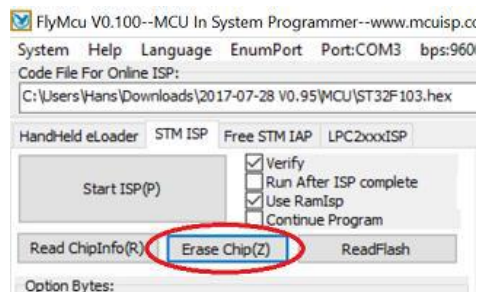
10. When complete please unplug the RS232 cable and restart the CTOUCH Laser air+ via the **Power switch (7)**

In case the automated upgrade process is unsuccessful

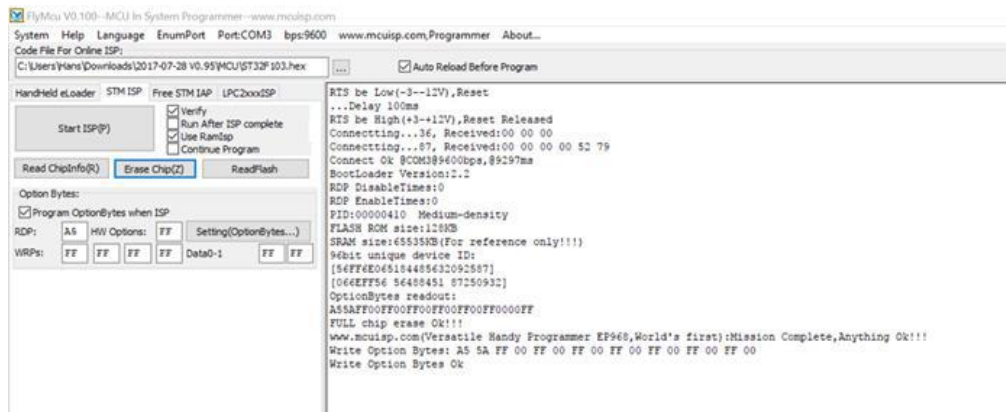
In the rare case that above procedure is not successful, please take the next steps to get the MCU updated:



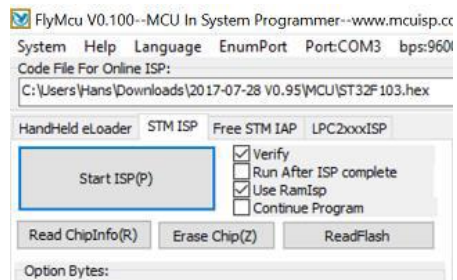
1. Power Off the set via **Power switch (7)**.
2. Select the option 'Erase Chip(Z)' in FlyMcu:



3. Power On the set via the **Power Switch (7)** and hold the **Standby button (4)** for a few seconds. Erasing starts.



4. Power Off the set via **Power switch (7)**.
5. Select the option 'Start ISP(P)':



6. Power On the set via the **Power Switch (7)** and hold the **Standby button (4)** for a few seconds. Upgrading from MCU starts.
7. When Done, please disconnect RS232 cable and Power Off / On the set via the **Power Switch (7)**.