

Linumeric-LPT V3 programming EN

After producing or during the production of **Linumeric-LPT V3**, the software must be uploaded to the ST32F103 microcontroller located on the *blue-pill* board.

1. Tools needed:

- a) STM32 programmer, e.g. ST-LINK V2 (can be a clone)



- b) Gold-pin connection cables



- c) Computer with **STMCubeProgrammer** software
The software can be downloaded from the ST website:
<https://www.st.com/en/development-tools/stm32cubeprog.html>

or from the page www.machmaker.pl

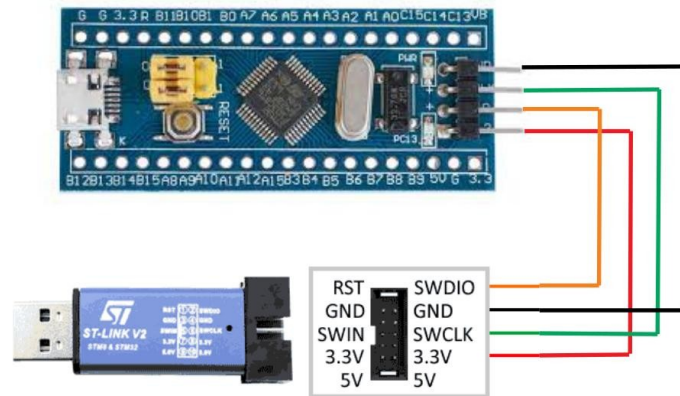
- Download for Linux: <https://machmaker.pl/data/files/en.stm32cubeprg-lin-v2-14-0.zip>

-Download for Mac: <https://machmaker.pl/data/files/en.stm32cubeprg-mac-v2-14-0.zip>

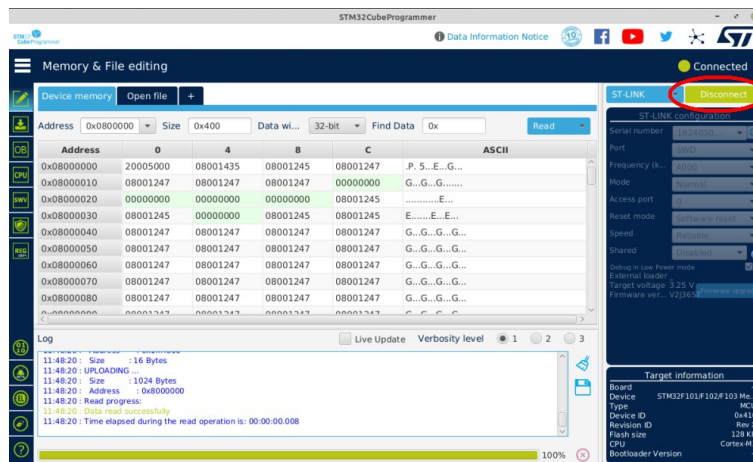
-Download for Windows 32bit: <https://machmaker.pl/data/files/en.stm32cubeprg-win32-v2-14-0.zip>

-Download for Windows 64bit: <https://machmaker.pl/data/files/en.stm32cubeprg-win64-v2-14-0.zip>

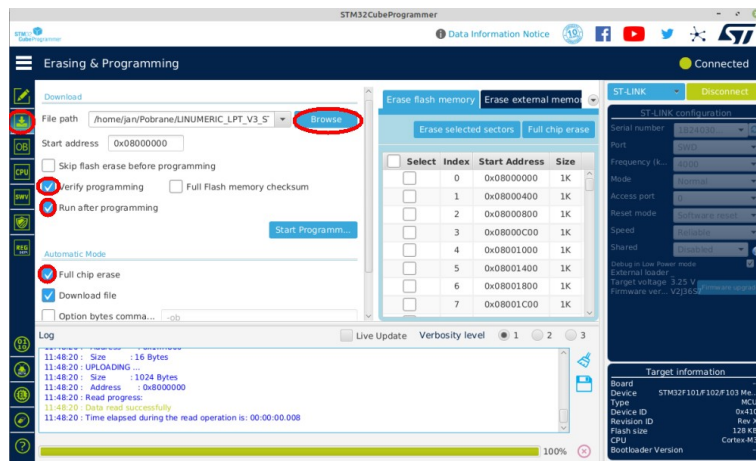
2. Download the startup software for the microcontroller:
https://machmaker.pl/data/files/LINUMERIC_LPT_V3_START.bin
3. Connect the programmer to the *blue-pill* board



4. Connect the programmer to the computer's USB port. At least one green LED should light up on the blue-pill board.
5. Run the STM32CubeProgrammer application
6. Press the **Connect** button, the program should connect to the microcontroller and read the memory



7. Go to the **Erasing & Programming** tab, use the **Browse** button to select the *LINUMERIC_LPT_V3_START.bin* file, select the Verify programming, Run after programming and Full Chip Erase options.



8. Press the **Start Programming** button. After programming is completed, messages will appear.
9. Press the **Disconnect** button and disconnect the programmer from the device board.
10. After programming, the device is ready for operation. In this condition, the device is fully functional for 60 minutes of operation. To obtain unlimited use of the device, you must authorize it. Authorization instructions can be found in instruction number 7.