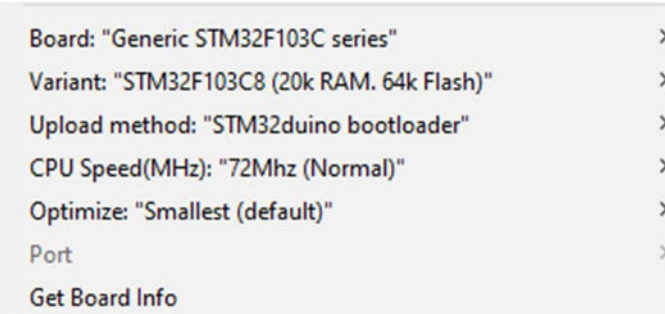


Programming instructions

In order to upload the code to the board via USB, it is necessary to take several steps to enable it.

1. Download STM32duino bootloader (I used generic_boot20_pc13.bin) from link [STM32duino-bootloader/binaries](#) at master · rogerclarkmelbourne/STM32duino-bootloader
2. Flash using ST LINK or over USB-to-serial converter. For ST link, stm32cube programmer needs to be used, and for usb-to-serial, upload can be done over STM32 flasher utility (I recommend st link). If st link isn't working, 'shared' mode must be enabled while connecting. Before you flash, STM32 must be disconnected and BOOT switch must be put into '1'. After flashing, disconnect and put into position '0'.
3. Now, board definition must be installed, add this link to additional board manager url's http://dan.drown.org/stm32duino/package_STM32duino_index.json Inside boards manager install STM32F1xx/GD32F1xx boards
4. After STM32 core installation, USB drivers needs to be installed from link: https://github.com/rogerclarkmelbourne/Arduino_STM32 (download whole repo, open drivers/win, and open install_drivers file. Driver installation can take some time).
5. After drivers are installed, connect the board and open Arduino IDE. Select STM32F103C8 board and other options leave as default.
6. After these steps, upload over USB should be possible.



A screenshot of the Arduino IDE board manager settings for a STM32F103C8 board. The settings are displayed in a list with expandable arrows on the right side of each item.

- Board: "Generic STM32F103C series" >
- Variant: "STM32F103C8 (20k RAM. 64k Flash)" >
- Upload method: "STM32duino bootloader" >
- CPU Speed(MHz): "72Mhz (Normal)" >
- Optimize: "Smallest (default)" >
- Port >
- Get Board Info