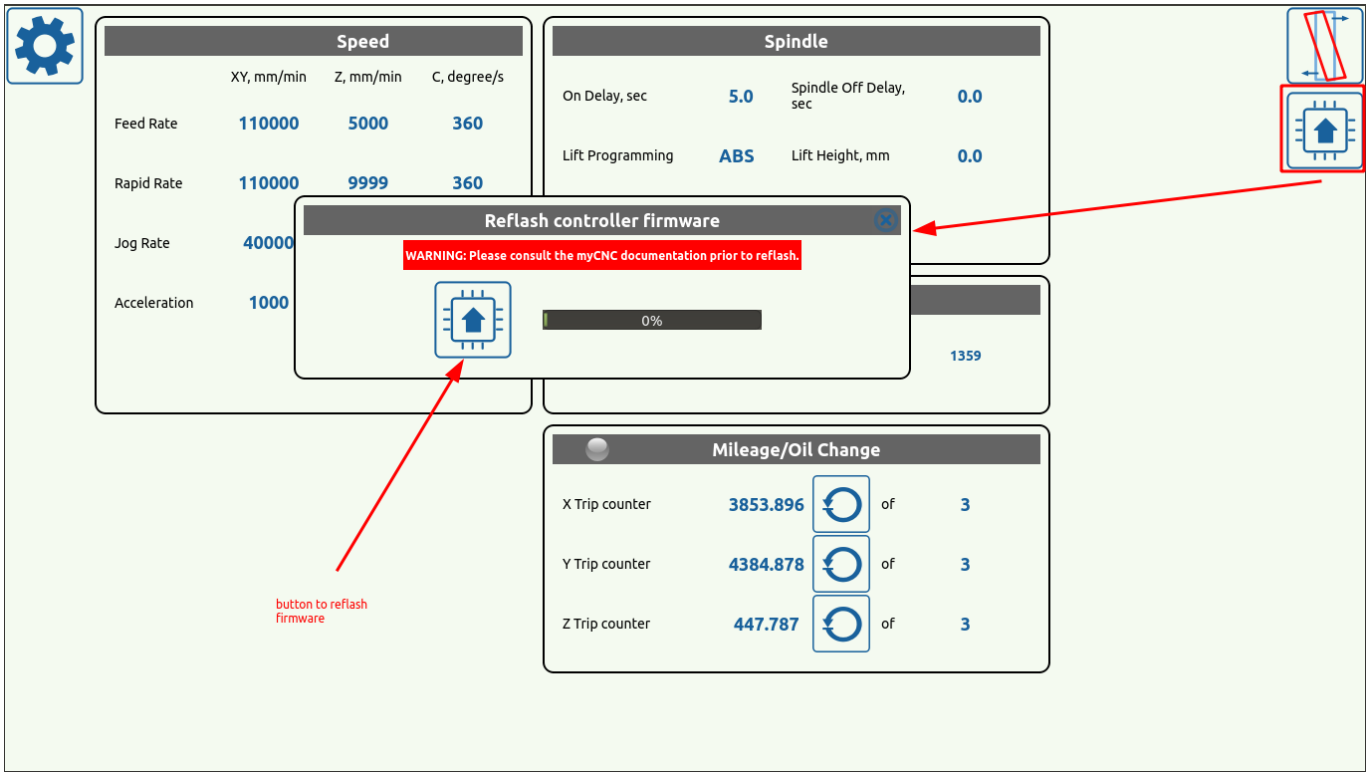
Firmware Reflash

As of June 2023, the boards sold by Puruvesi Automation feature the simplified process of updating the controller firmware via the `bootloader-firmware-update` command that can be assigned to a button or a GUI element within a myCNC profile. Normally, when using the button which features this command, the process consists of simply pressing the GUI element which launches this command and waiting for the firmware reflash to complete. On updated profiles/firmware versions (as of June 2023) the button to reflash the firmware is available in the User Settings:



All that is required to reflash the firmware in that case is to have the board connected via the Ethernet cable. Pressing the button will launch the firmware reflash (no need for the mini-USB/micro-USB cords that had to be used on the older boards and older firmware versions, or closing/opening jumper cables).

However, on older boards or in cases where a full manual firmware reflash is necessary, a more comprehensive method of updating the firmware "from the ground up" is available to the user. Note that this method should not be used unless the `bootloader-firmware-update` option is unuseable for any reason.

The process for updating the firmware this way is described below.

Warnings and comments

WARNING: *Unlike updating the myCNC software, the firmware CANNOT be downgraded after a reflash. The myCNC team recommends reflashing the control board firmware as a last resort only,*

and recommends seeking an explicit confirmation from the support team that the firmware reflash is warranted in order to avoid issues.

NOTE: *Flashing incorrect version of the firmware will result in a non-functional board. If you're unsure of your board version, please contact myCNC Technical Support prior to the reflash.*

Manual Firmware Reflash procedure

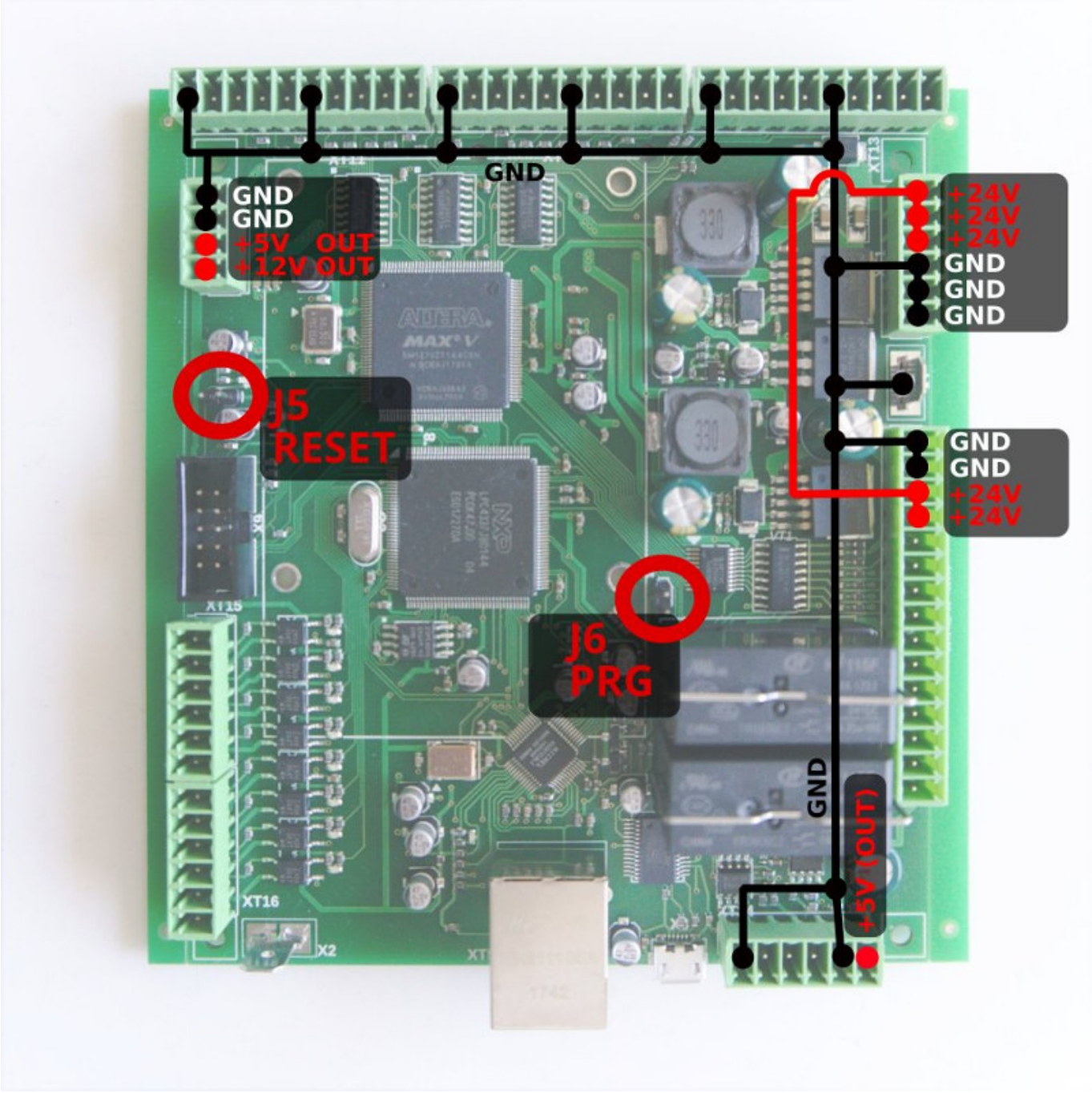
STEP 1: Prior to the reset, make sure that the controller has the default IP address of 192.168.4.78. If unsure, please consult the following manuals:

1. Change IP Address of myCNC control board
2. Network Setup

STEP 2: Select your board and follow the steps below to begin the reflash process. The physical connections and jumpers that need to be closed will be different depending on the board model.

Necessary steps for ET6

myCNC-ET6 reflashing procedure may take about 3 minutes.



To reflash the board

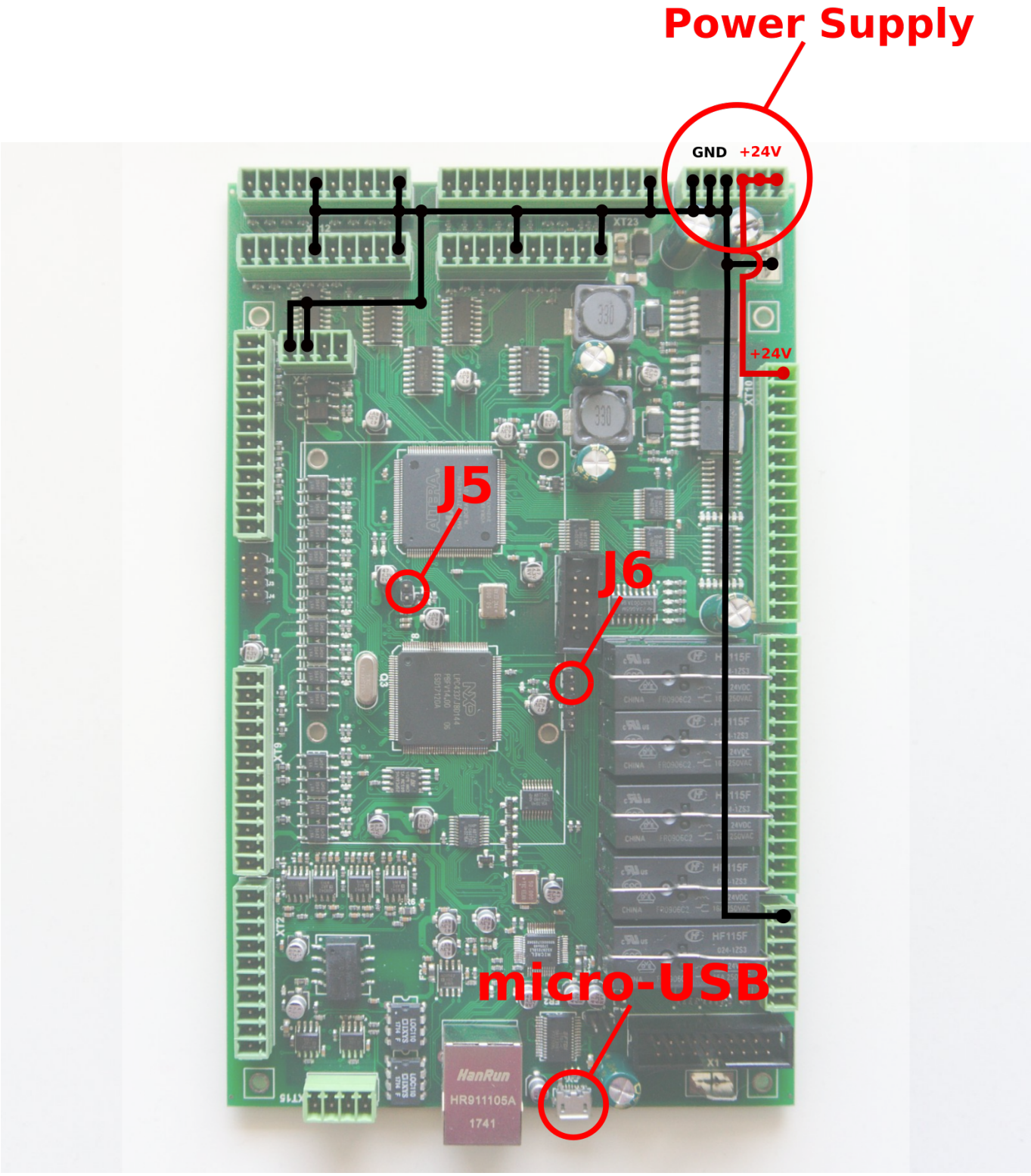
1. Plug 24V DC supply
2. Plugin micro-USB cable to ET6 & Host Computer with myCNC software installed
3. Close (short) jumpers J5(reset) & J6(programming) on myCNC control board
4. Open (remove) J5 jumper.
5. Continue from Step 3 below.

Necessary steps for ET7

myCNC-ET7 reflashing procedure may take up to 3 minutes.

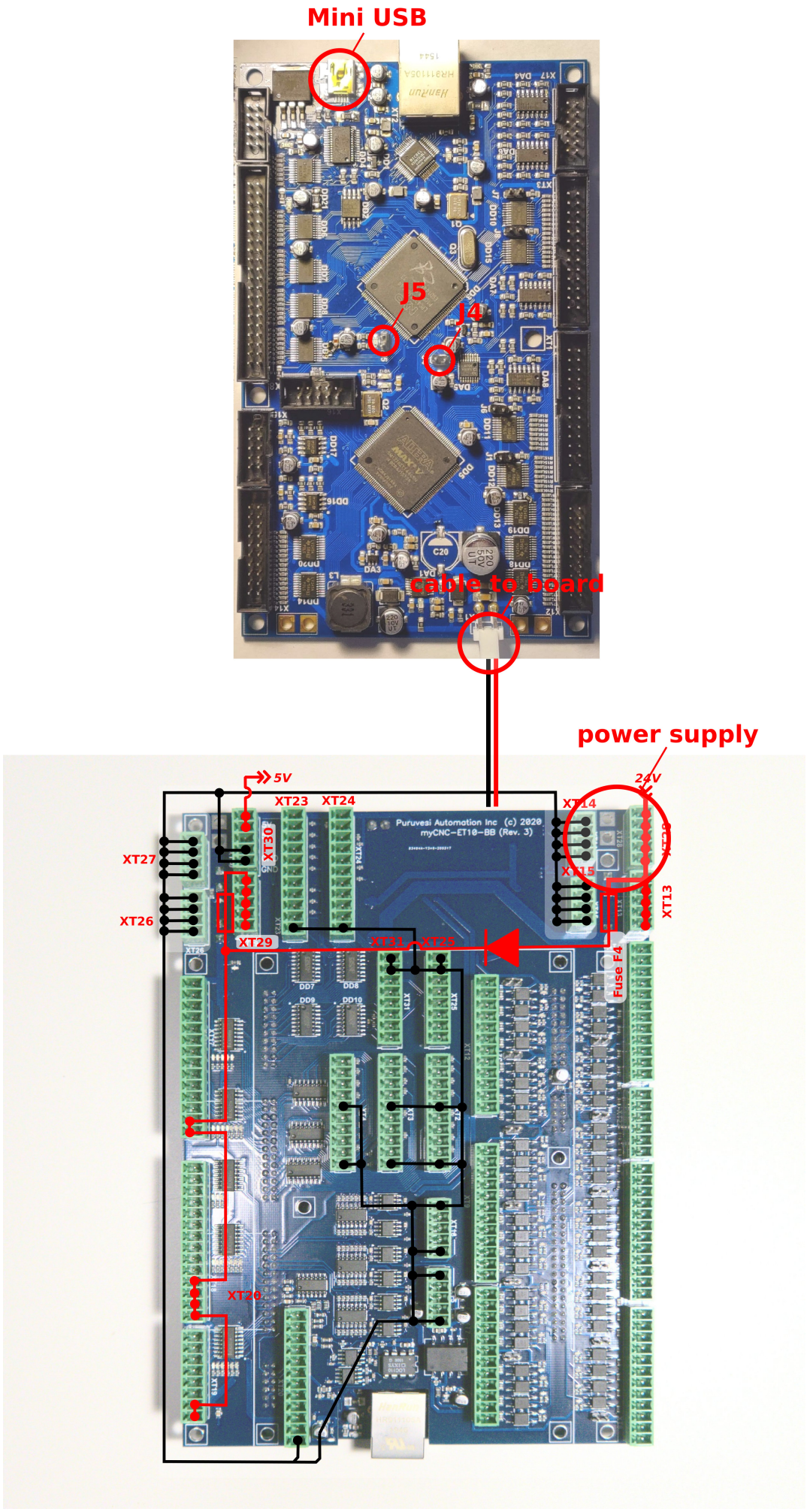
To reflash the board:

1. Plug in the 24V DC power supply
2. Plug in the micro-USB cable into the ET7 controller & a Host Computer with myCNC installed
3. Close jumpers J5(reset) & J6(programming) on the controller board
4. Open (remove) the J5 jumper.
5. Continue from Step 3 below.



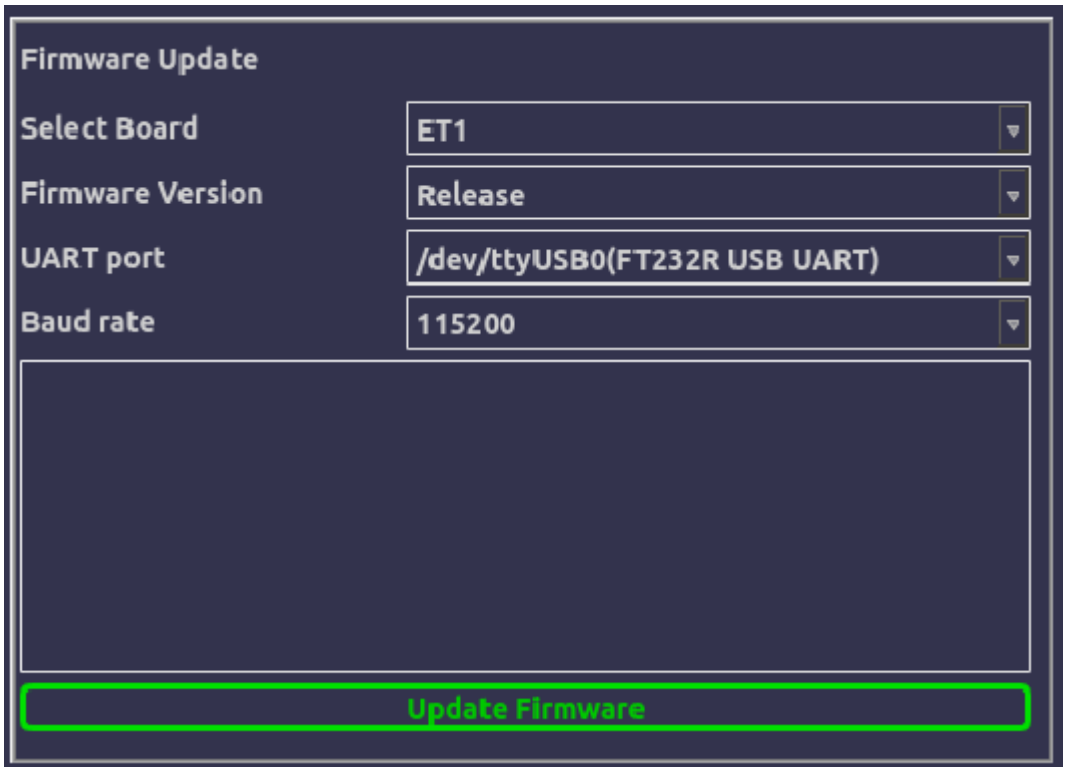
Necessary steps for ET10

To reflash the board


Mini USB
J5
J4
cable to board
power supply
5V
24V
XT23
XT24
XT14
XT27
XT26
XT30
XT29
XT15
XT13
XT11
XT25
XT20
Fuse F4
Puruvesi Automation Inc (c) 2020
myCNC-ET10-BB (Rev. 3)

1. Unplug the 24V DC power supply and detach the ET10 controller from the Breakout board
2. Plug 24V DC supply
3. Short power cable between ET1 and Breakout leave connected.
4. Plug in the mini-USB cable to ET10 & Host Computer with myCNC installed
5. Close jumpers J4(reset) & J5 (programming) on the myCNC controller board
6. Open (remove) the J4(reset) jumper.
7. Continue from Step 3 below.

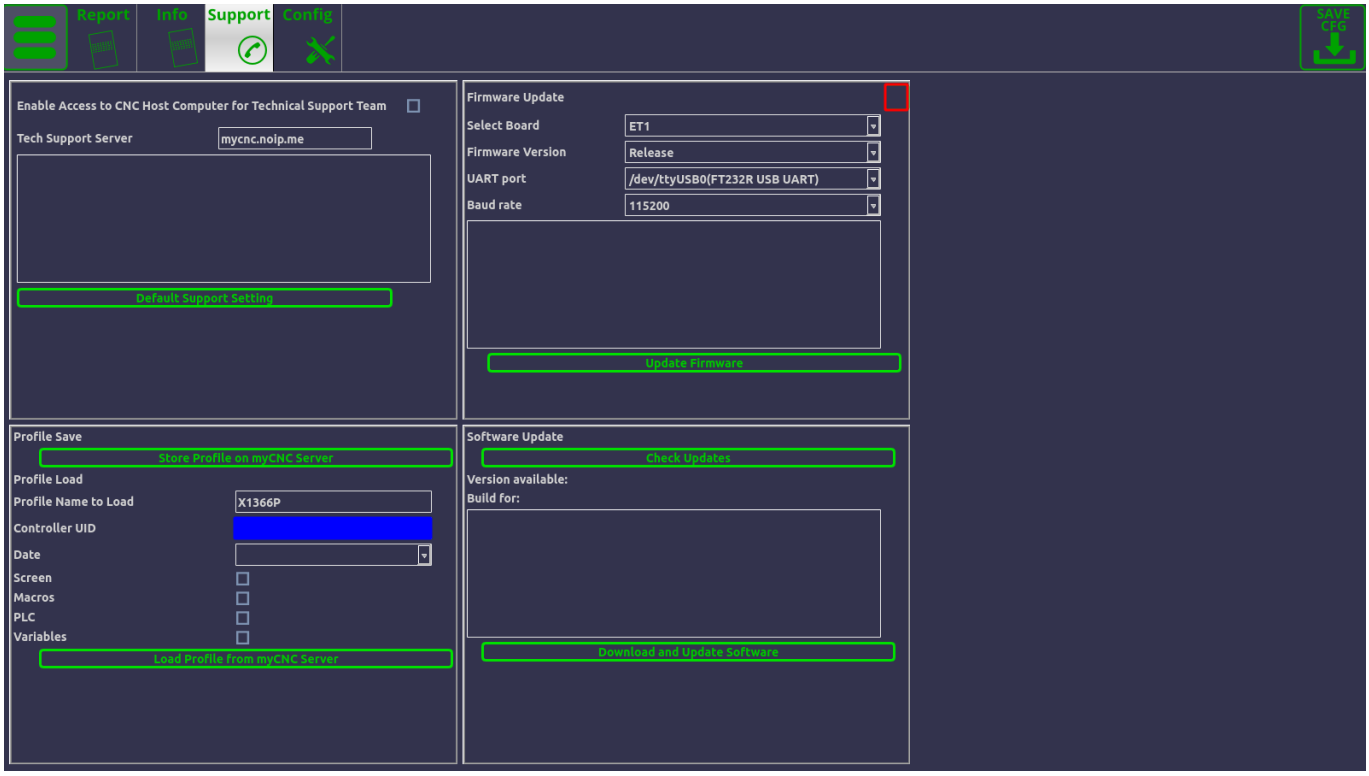
STEP 3: In the Select Board field, select "***ET1***" (regardless of your current board that you have connected to the PC). Select ***Release*** for the firmware version, ***/dev/ttyUSB0*** for the UART Port, and ***115200*** for the Baud Rate:



STEP 4: Press the **Update Firmware** button.

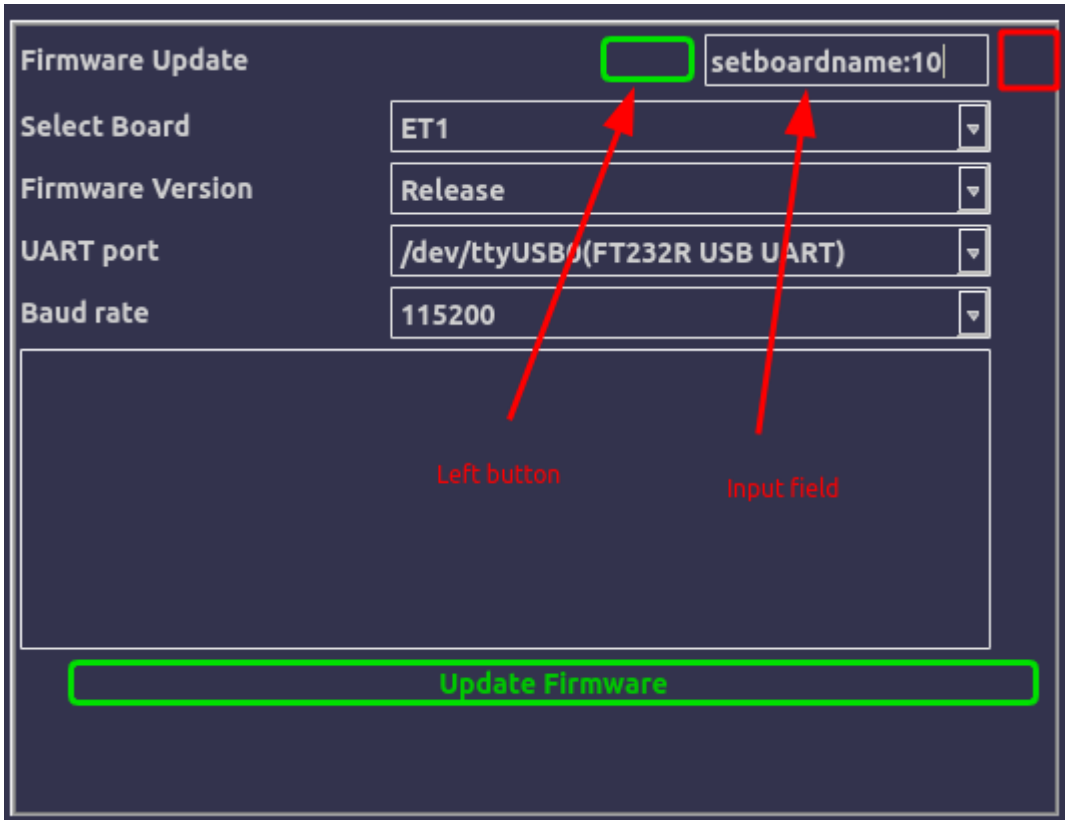
STEP 5: After the firmware has been updated, remove the jumpers and restart the board. The board should now be assembled (if it has been disassembled before, for example in the case of the ET10 controller).

STEP 6: In the Support tab, click the area highlighed in red in the photo below:

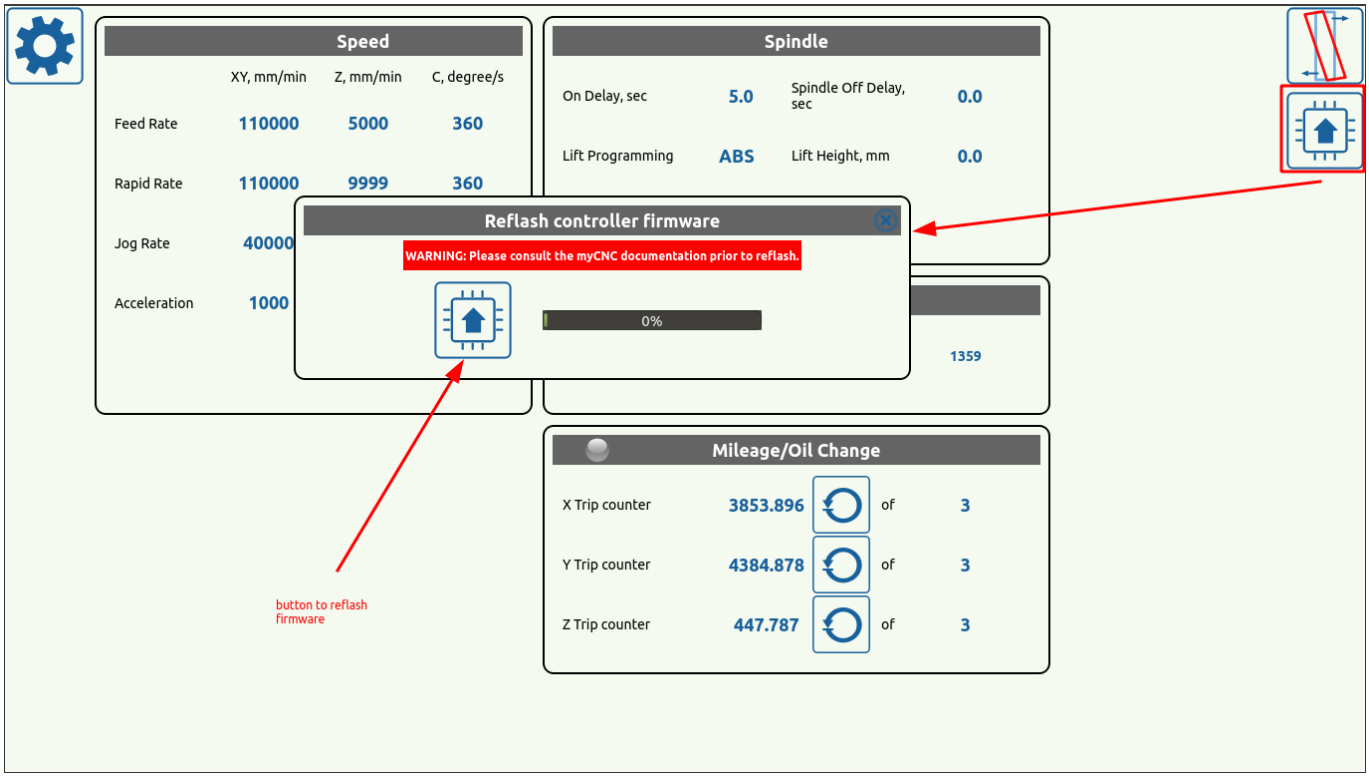


STEP 7: In the input field that will appear, enter "*setboardname:*", followed by the number that indicates the version of your board. For instance, for the ET6 board, enter *setboardname:6*, for the ET9 enter *setboardname:9*, etc.

STEP 8: Press the button that appears to the left of the input field:



STEP 9: Head into the User Settings and launch the firmware reflash. The bootloader setup is now complete:



Once the bootloader setup (the steps 1-9 above) have been completed, you can use the `bootloader-firmware-update` command (via a button in the User Settings of your profile) to quickly reflash the firmware without going through the manual steps. At this point, only the connection via the Ethernet port is required (no mini/micro-USB cord or jumper cables).