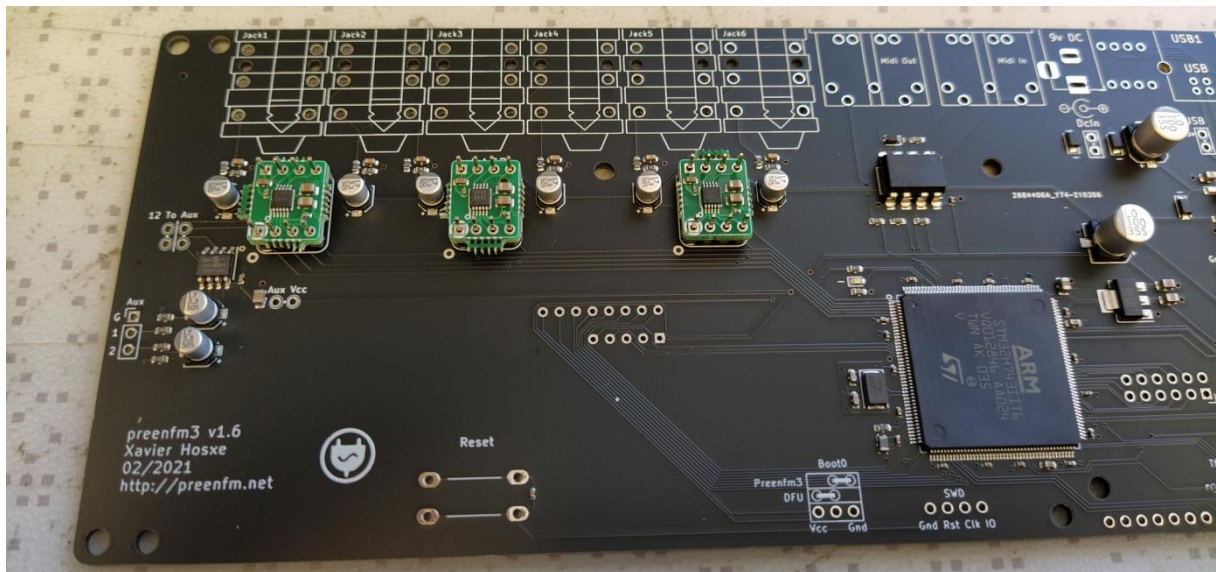# preenFM3 Assembly instructions. v2. Starting from Patch 5.
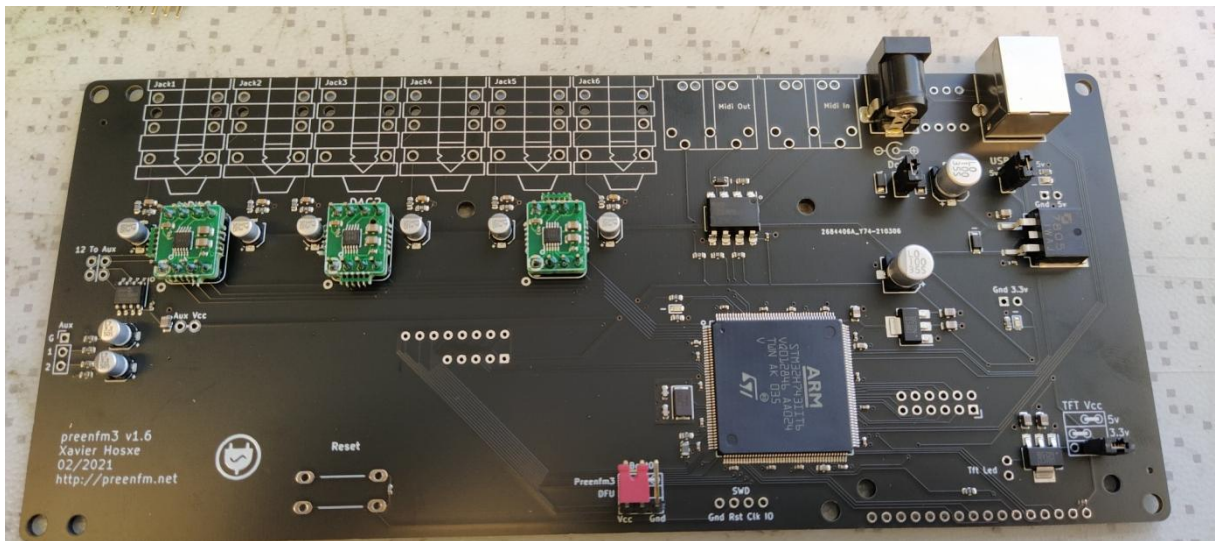
This is what you will see when recieving the package. It has everything you need to assemble a working PreenFM3.
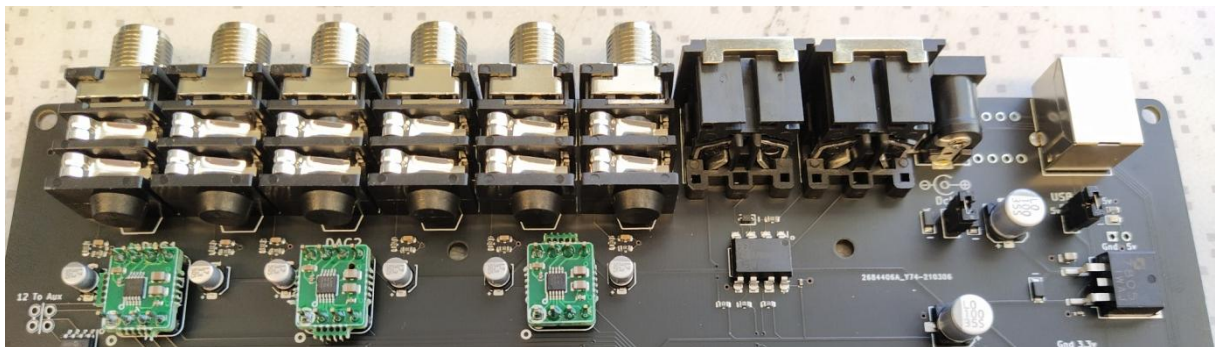

1) Step 1. Solder the small DAC PCBs on the mainboard. Use pinheaders. 4 pins in a group. Total of 6 groups.
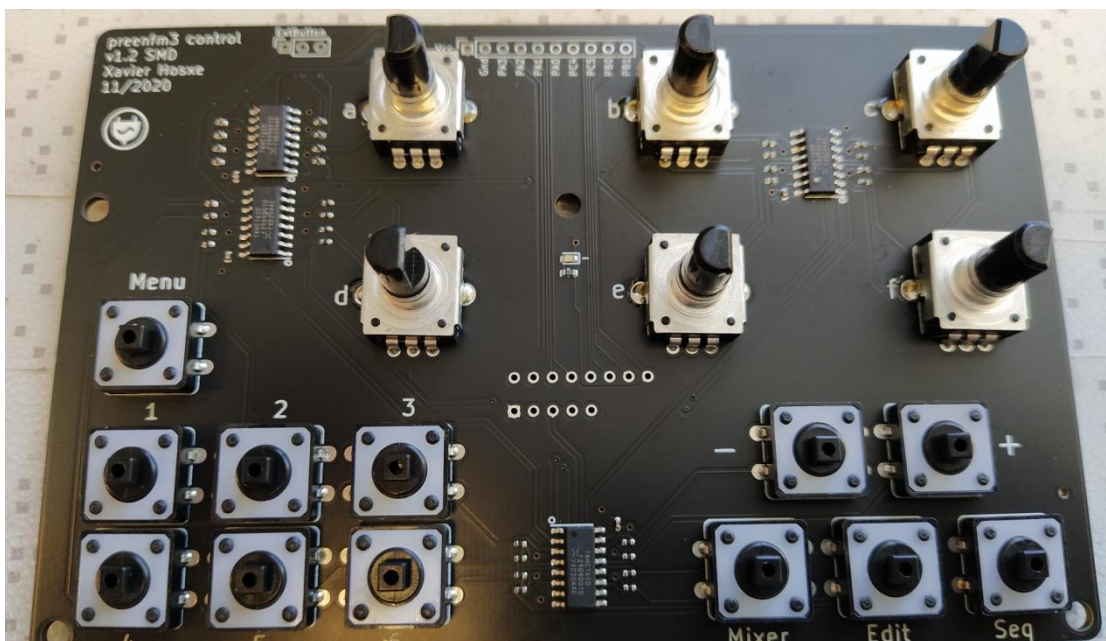
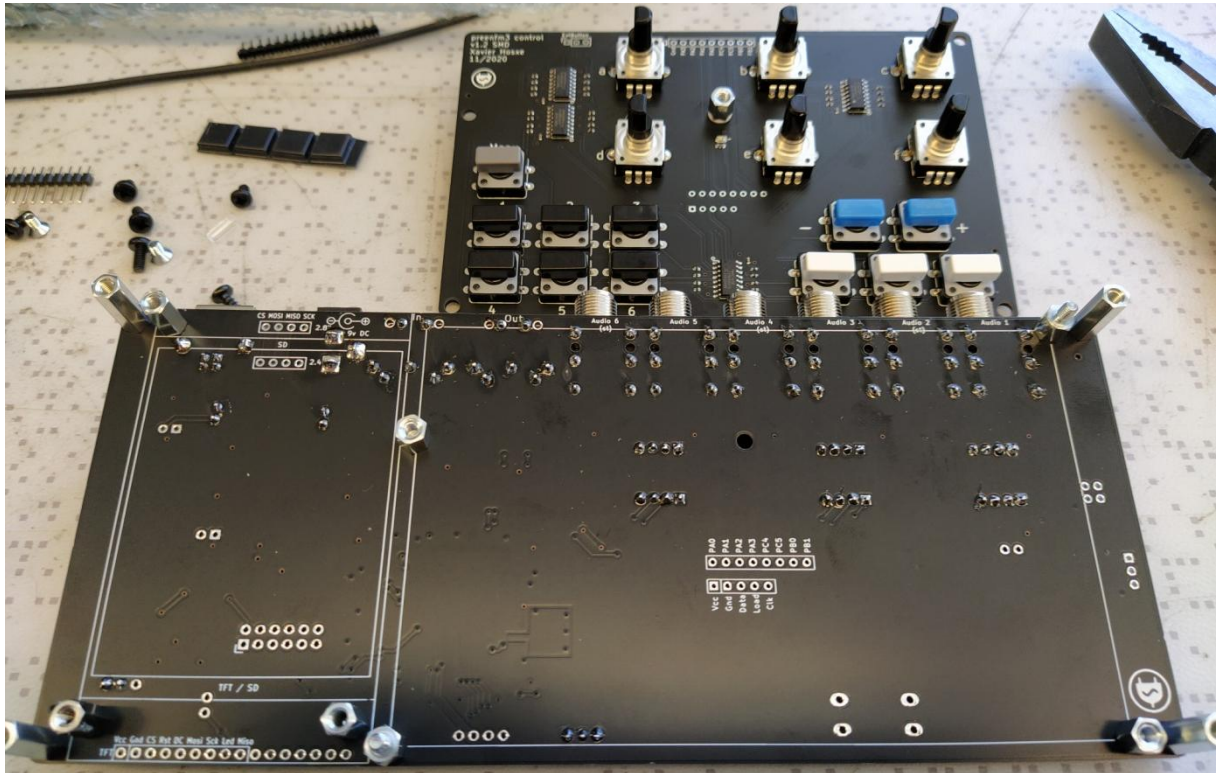2) Step 2. Solder the jumpers, DC connector, USB connector. (in this order) TFT Vcc jumper to 5V pos.

3) Step 3. Solder the audio jacks and then Midi connectors.

4) Step 4. Assemble the control board. Switches first, encoders last. Allign the encoders straight. Solder one leg first and then adjust them. Dont rush here.
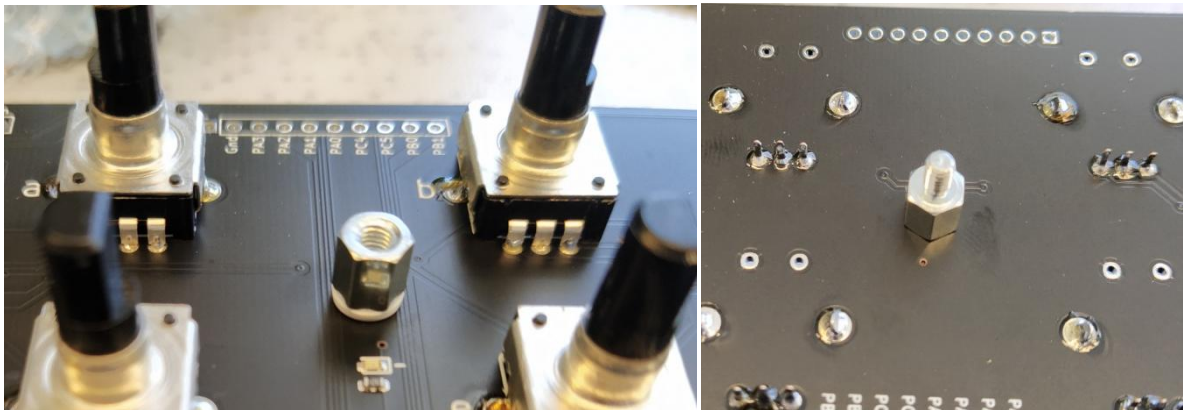
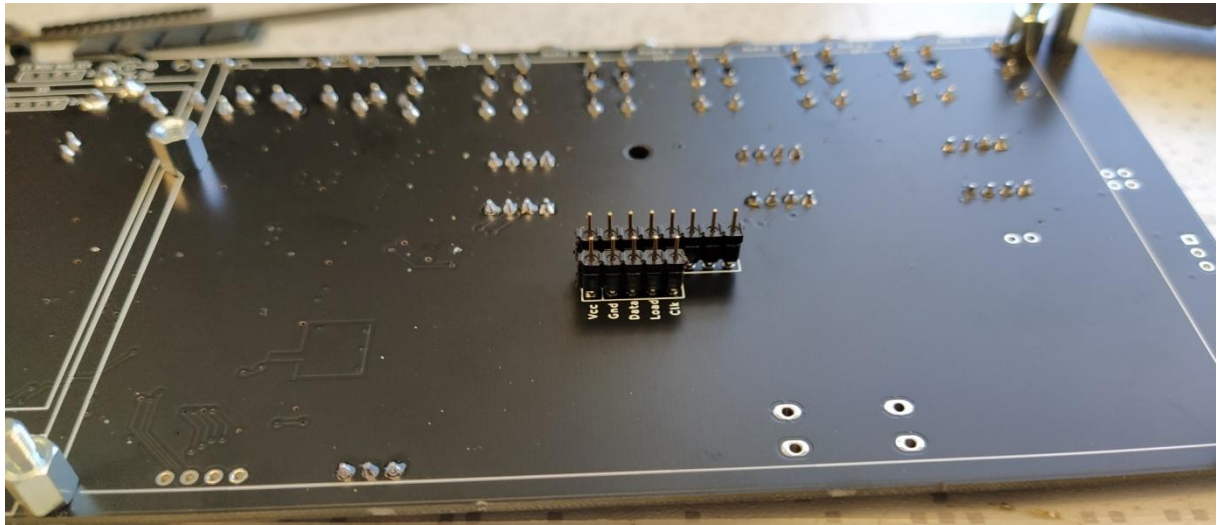5) Step 5. Mount the spacers and nuts and scews like shown in the picture.

6 short Female/Male spacers for the control board mounting. (one spacer with white plastic washer)
4 long Female/Female spacers for the case.
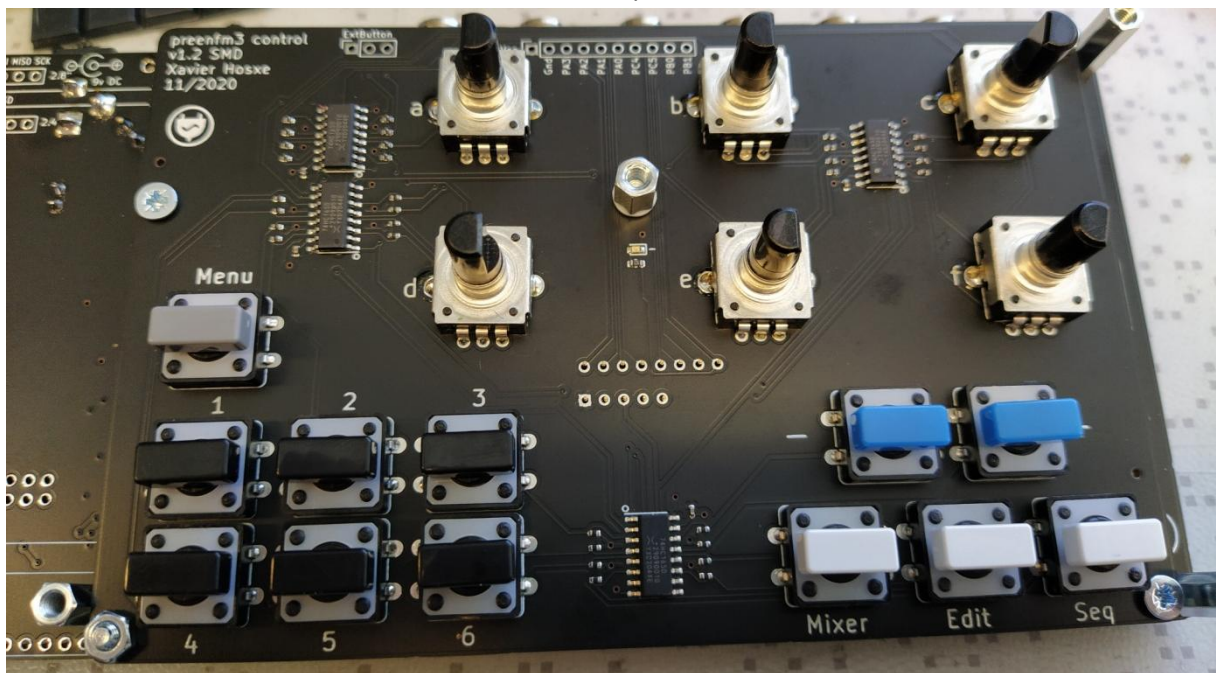3 medium Female/Female spacers for the screen.

Take note that the middle spacer in controlboard is mounted with white plastic washer and fixed by another spacer on the other side.
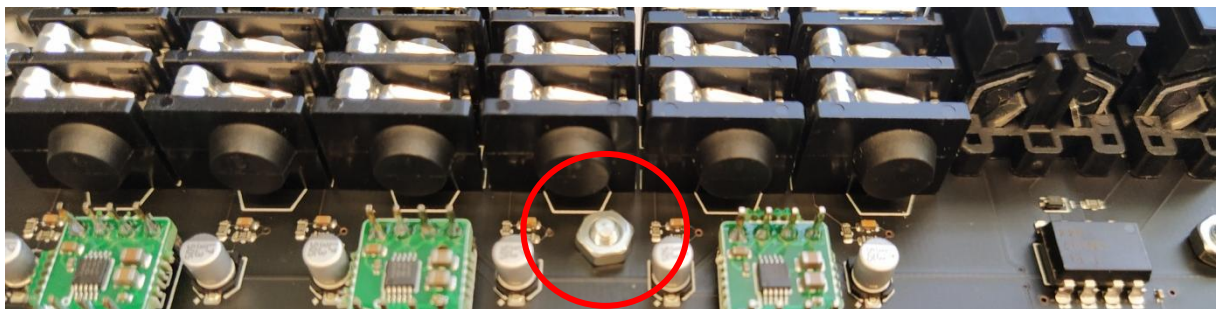
6) Step 6. Cut the precision low-profile pinheaders. Female+Male. And fit them to the main pcb. DONT SOLDER!!
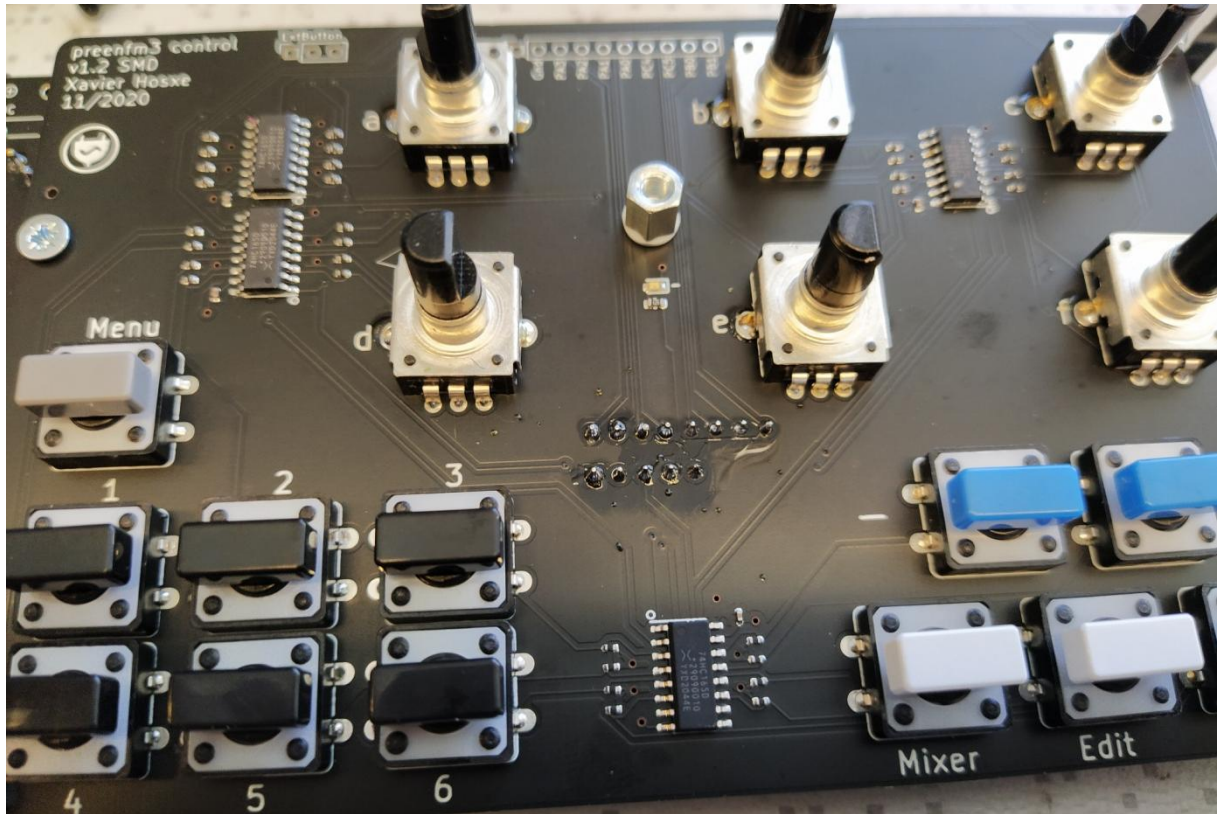

7) Step 7. Fit the control PCB on the mainboard. So that the pinheader will come through. DONT SOLDER!! Fix the board with screws and nuts to the spacers.
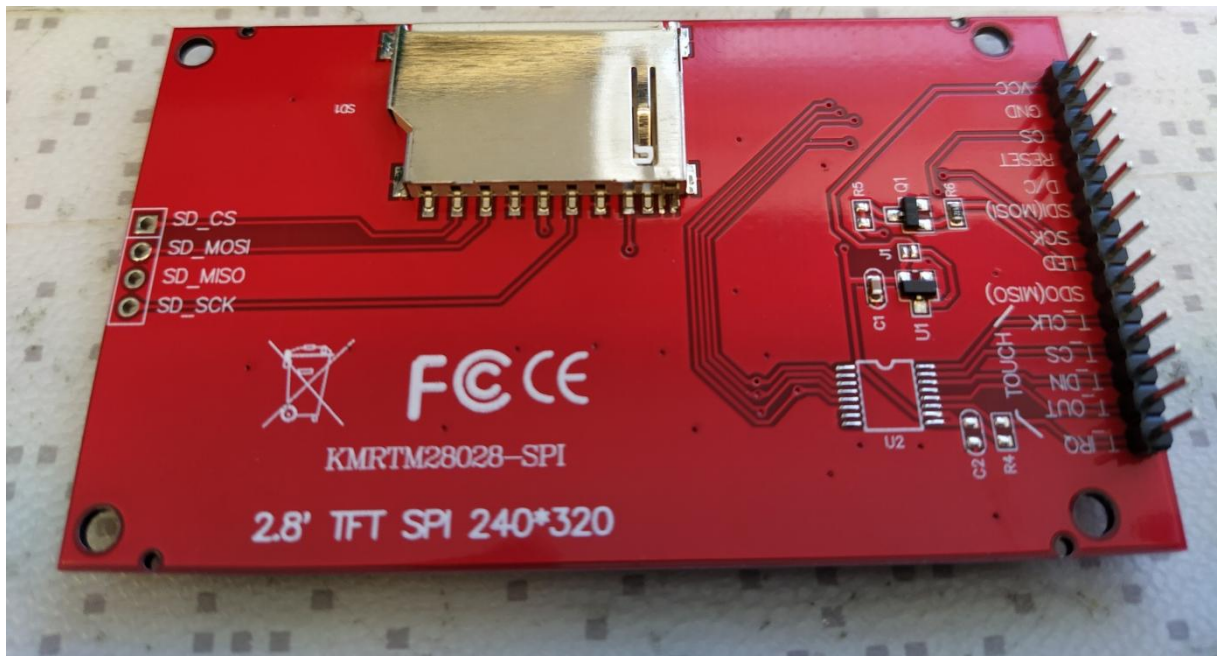

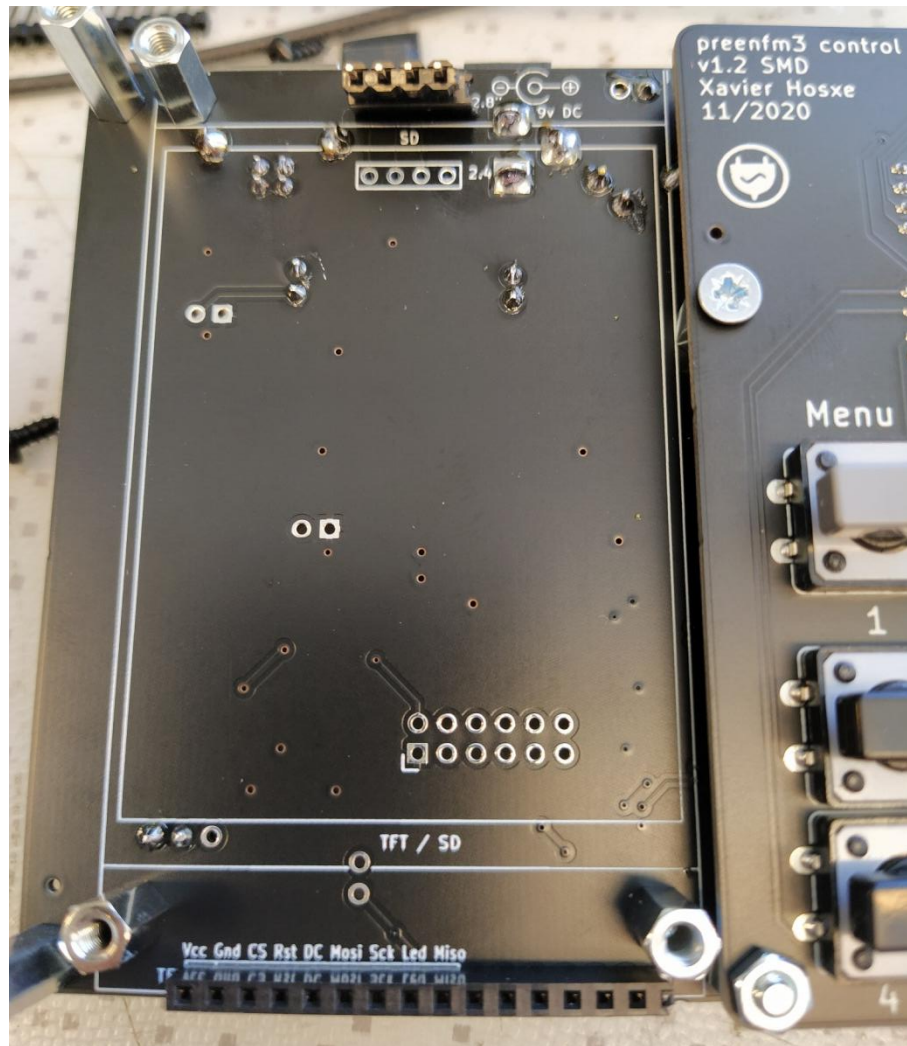Dont forget the nut on the other side of the main board!

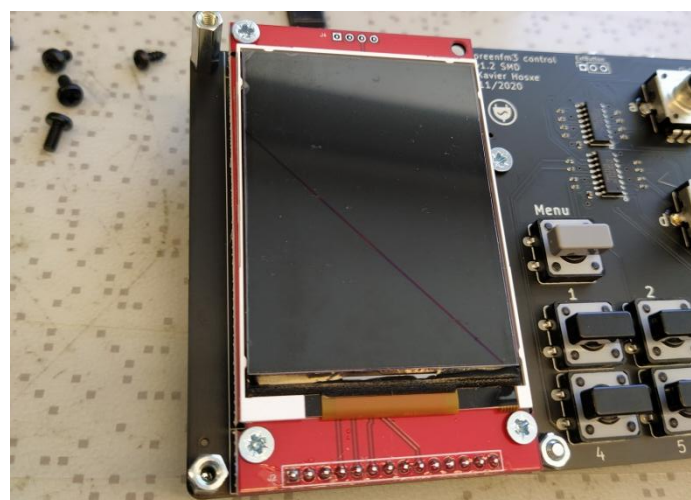8) Step 8. Now solder the pinheaders connecting the main board and controlboard. From both sides!

9) Step 9. TFT screen has a known issue with the SD card slot. Re-solder it so that you dont have to deal with it later.
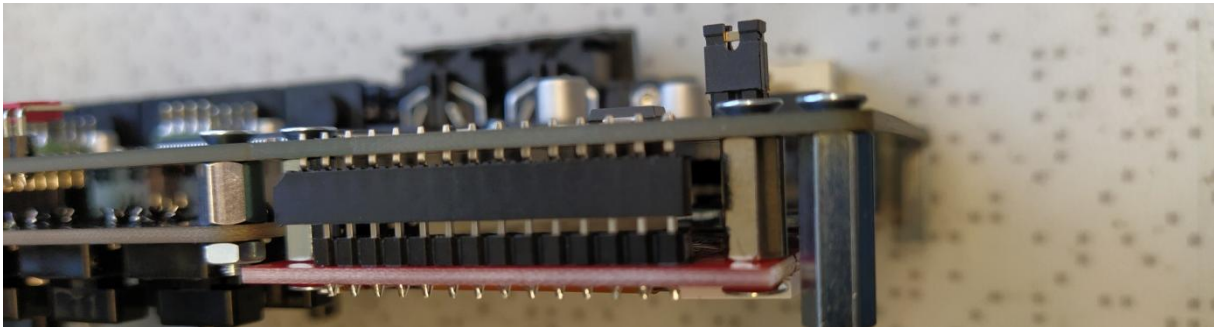
10) Step 10. Mount the TFT screen pinheaders and sockets. DONT SOLDER! Top 4 pins will be female and male together. Lower one will be only female row.

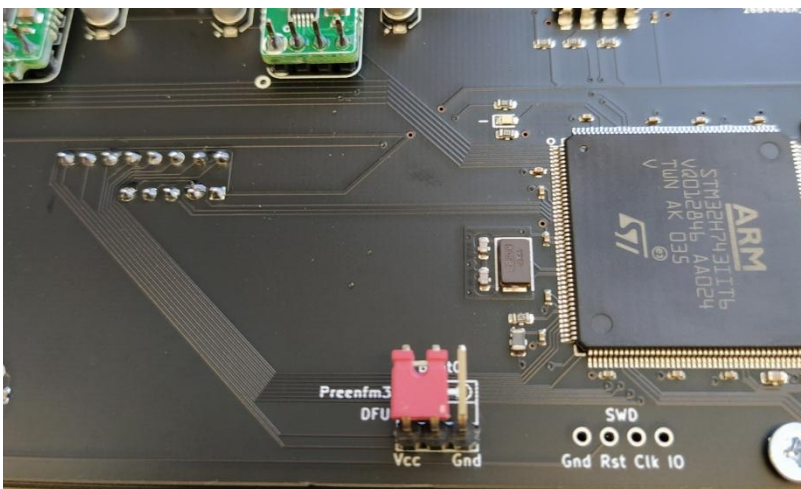11) Step 11. Insert the TFT screen in the socet and fix with screws.

12) Step 12. Adjust the pinheaders inside the sockets. So that there is good connection. Leave gaps. Now solder all the screen pinheaders.

13) Step 13. Copy all the needed files to the SD card. You can read more about it from the PreenFM3 website wiki. https://github.com/Ixox/preenfm3/wiki
After the files are there, cut the sd card shorter. We use scissors. Insert the SD card to screen SD connector.

14) Step 14. Put the boot jumper to the DFU postition and flash bootloader and Firmware over USB with your computer. Look for PreenFM3 wiki for guide. Before you mount the case make sure everything works, encoders, switches, screen, SD card, Audio out.

15) Step 15. Mount the case. First glue the light pipe to the case and then assemble everything. TFT screen and plexy screen needs to have the peel-offs removed. They are there for protection.

Its total of 5 m3 screws. Middle screw is the shortest. 2 screws are metal screws that connect the top and bottom.
On the back mount the jack washers and nuts.

Revision 2.
Van Daal Electronics

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http://ixox.fr/preenfm2/