

CC-Looper

CC-Automation

Midi Control Change MotionSequencer - for Synthesizer with LEDRINGS



Features

- * 4Midi channels @ each 512Steps X 32th-looprate X 128 CCs
- * only a few of the 128CC should be used @ once - 4x128xCCs @ 32th is Midi Data MESS and µC Death
- * maybe only 256Steps, will depend on RAM.... RealWorld will tell
- * each TRACK has a shared Track length for all its 128 CCs
- * Copy, Paste, Clear: for the all 128CCs/or single CC
- * There is no EDIT, you can clear a CC or Track and make a new Take
- * ProgramChange Load and Store on microSD-Card, Load and Store are CC-Commands, so you can remote the device
- * The Sequencer can be set to Tact Systems: 3/4 4/4 5/4 7/4 9/4 11/4 13/4

Hardware Requirements

External Requirement:(for example)

- You need a Synth with LEDRINGS - otherwise you have no Feedback and Overview - NordRack III is such one
- Melody/Clock Source with ProgramChange-Output: [midibox_seq_v4l](#) oops that dont do PC...
- Melody/Clock/CC Destination: NordRack III or any other Synth with Visual Feedback off CC-States

Midibox:

- [dipcoref4](#) - this is the μ C Brain for the Looper
- [cc-looper](#) - this is the UI-PCB of the Looper
- no other PCBs needet
- μ SD-Card, formated with FAT32
- Soldering Iron - with a Dip that can Handle SMD-Parts, Wires, solder Paste for the μ C....
- USB Power Supply with μ USB-Connector

Set

Cabeling

Midi IN1 »> MelodySequencer and Remote Devices

Midi IN2 »> Midi Out from Synthesizer - which sends out the Moved CCs

Midi OUT »> Midi IN of Synthesizer input (Automated CCs merged with mididata from Midi IN1)

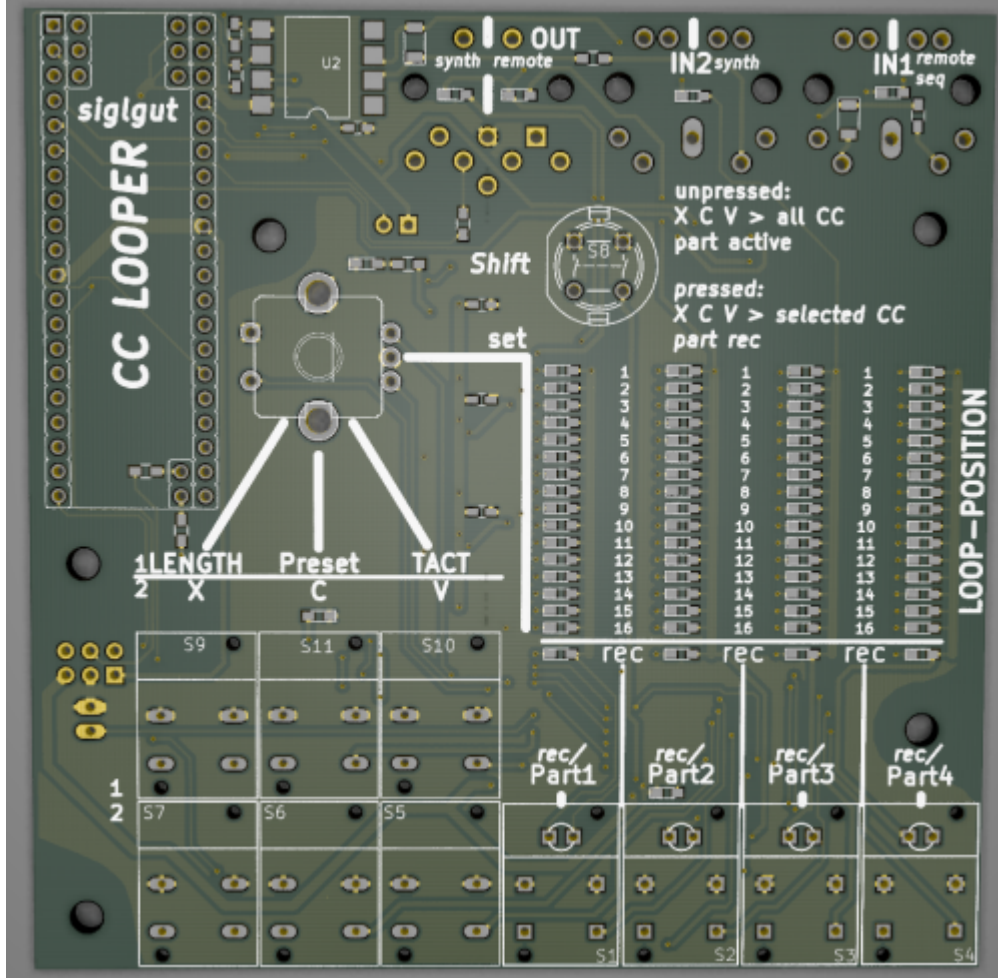
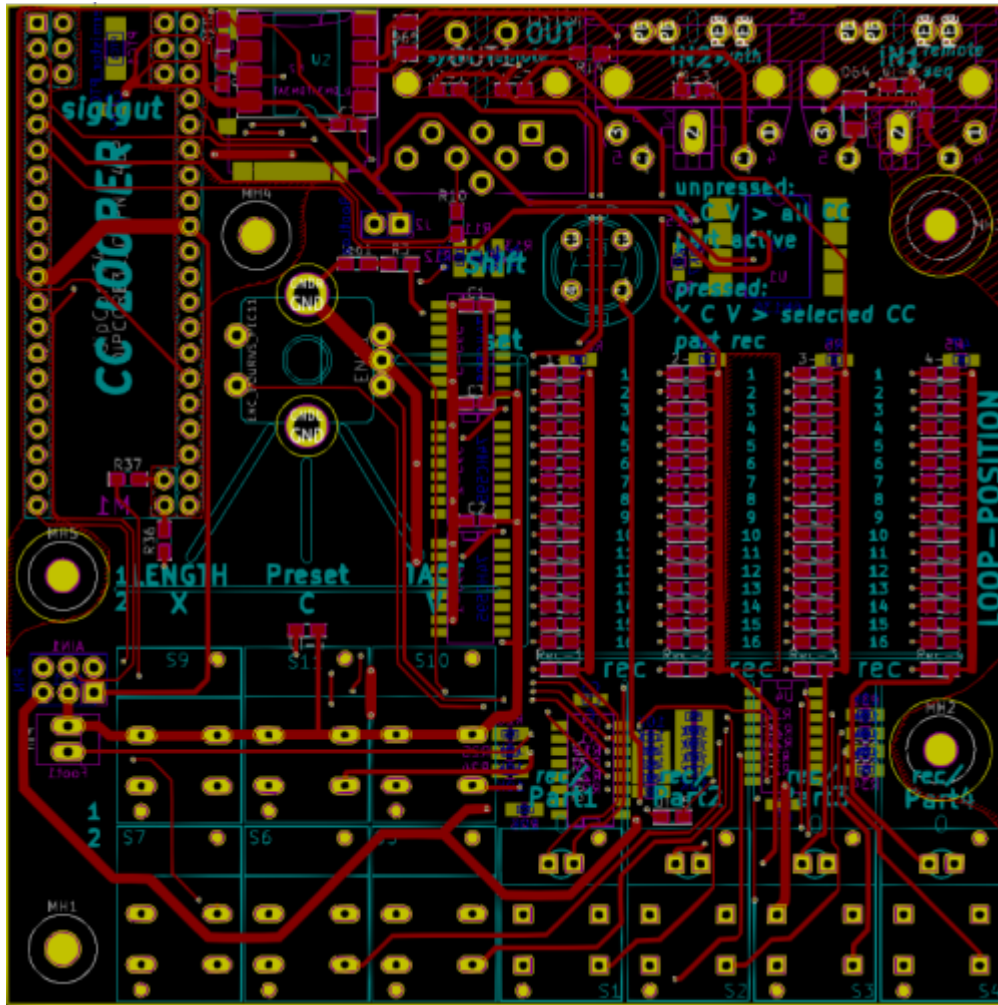
Software

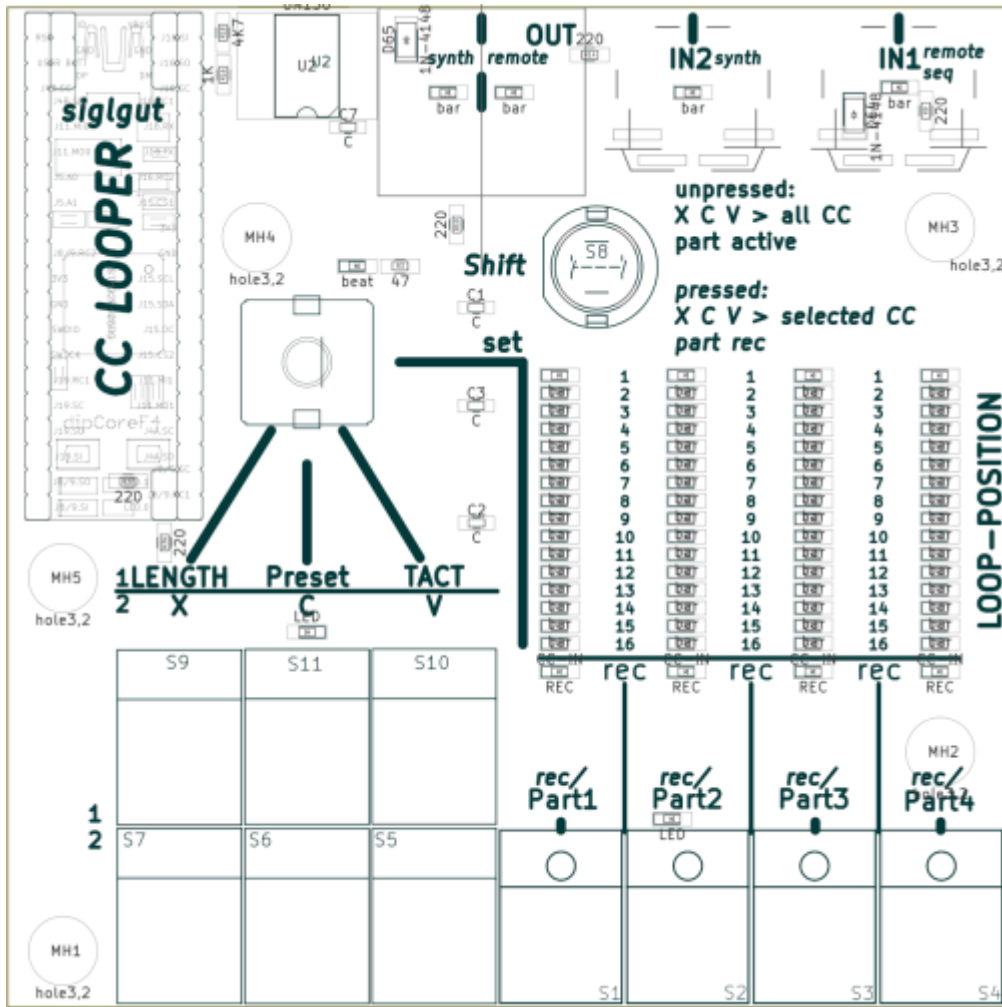
Firmware

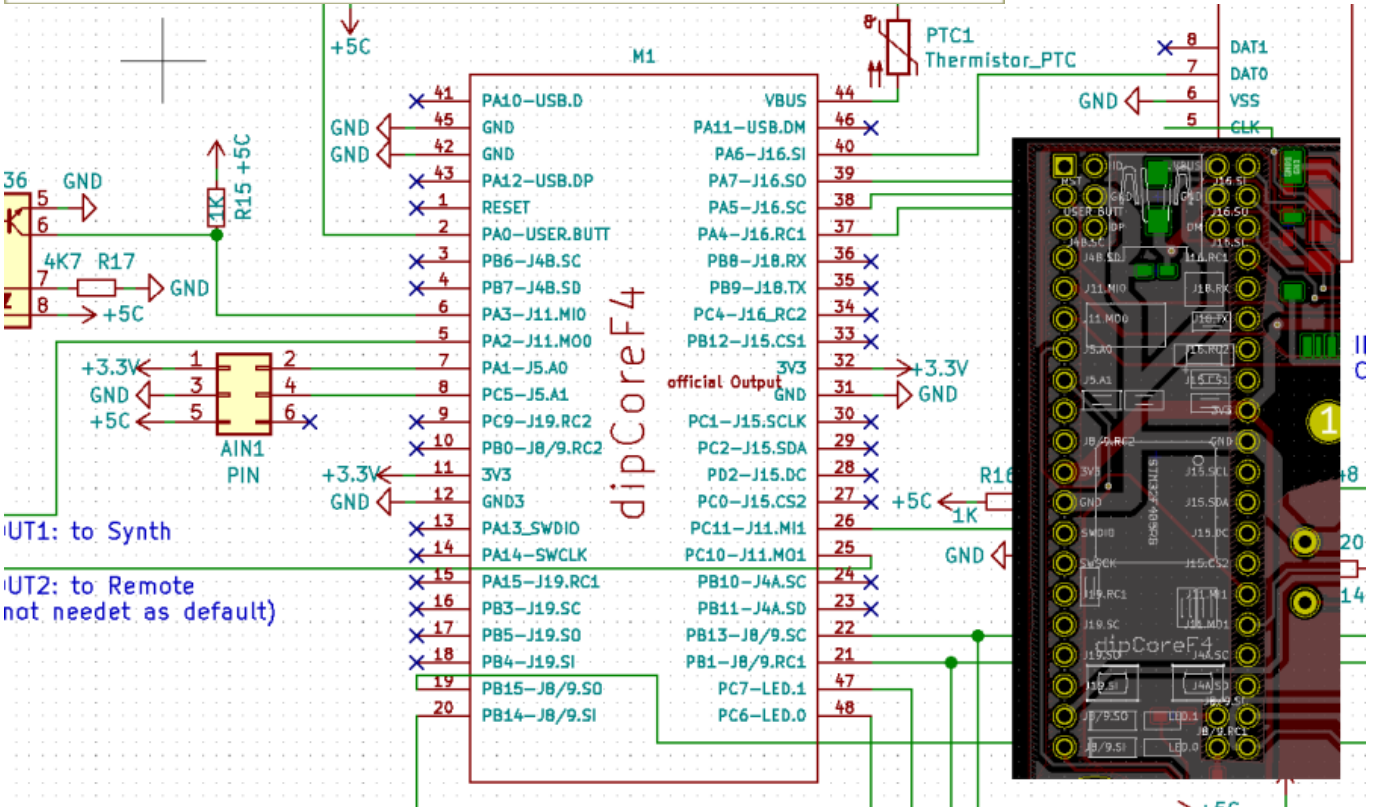
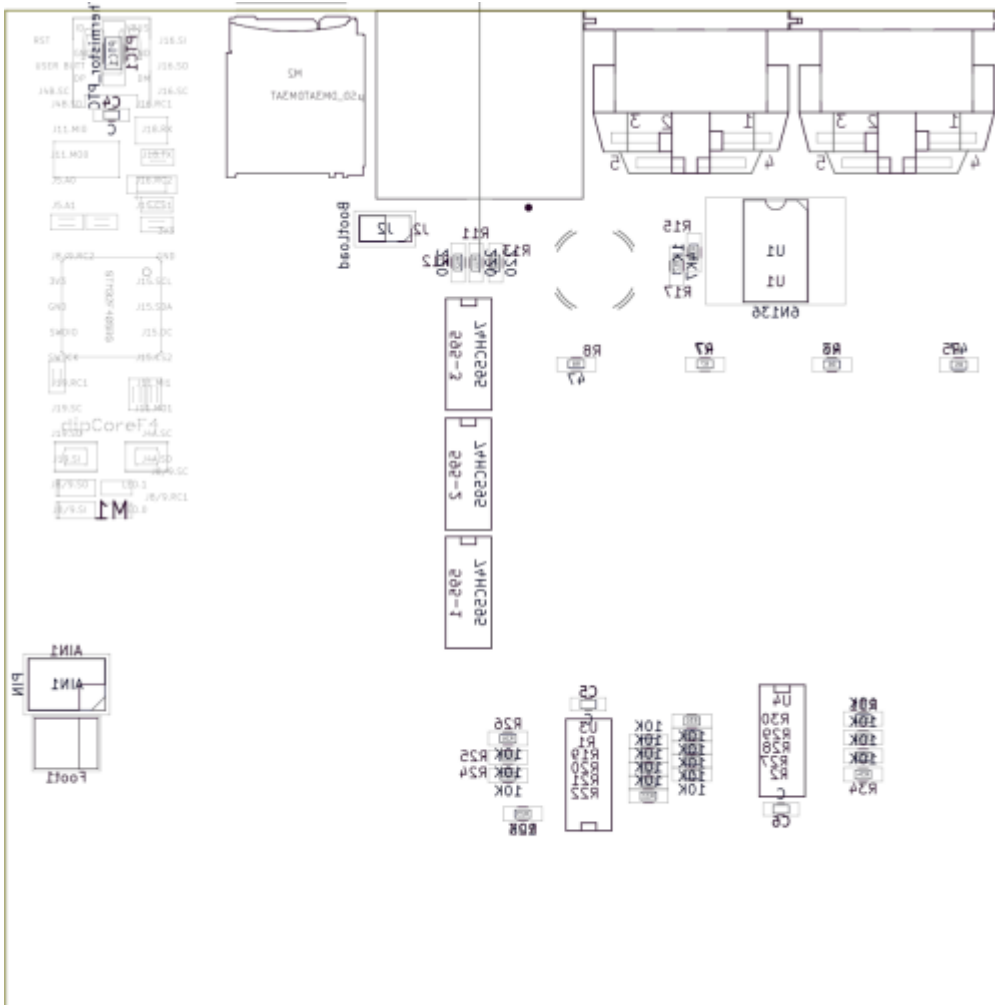


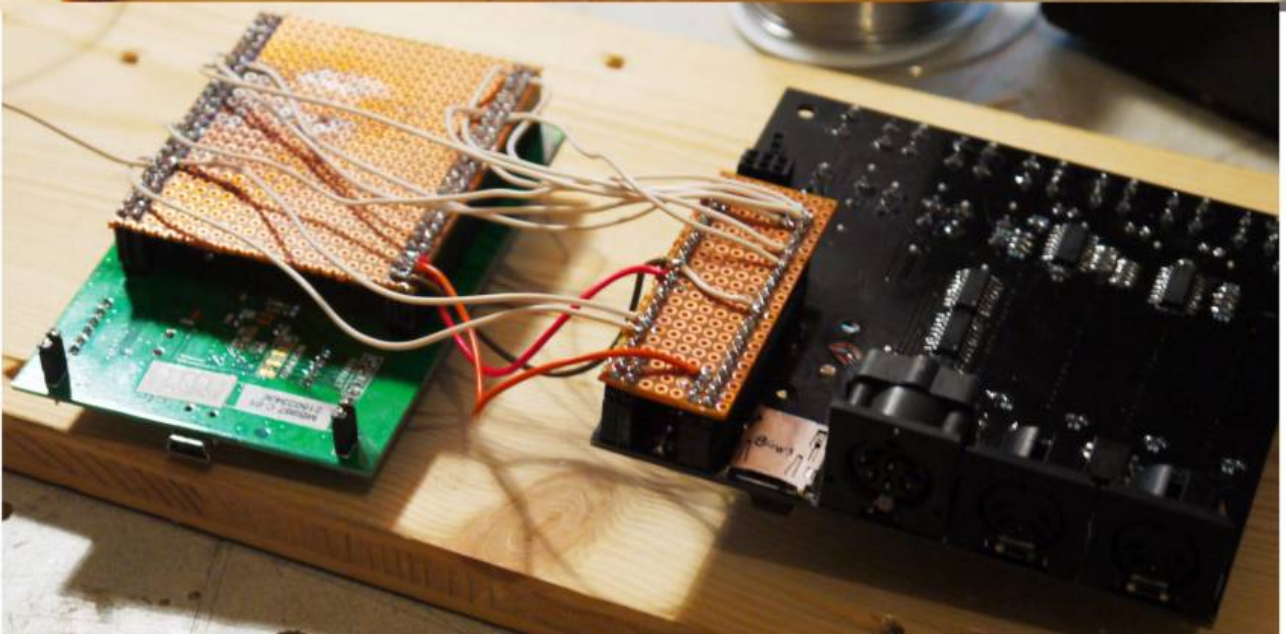
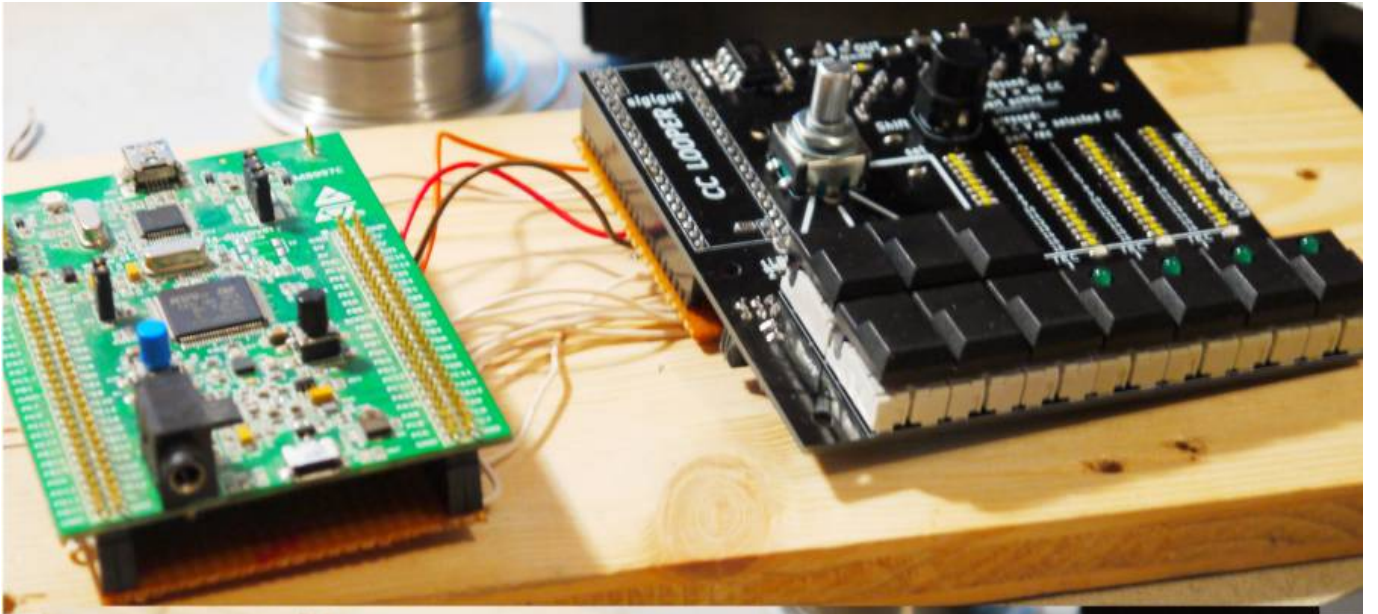
Firmware not made yet

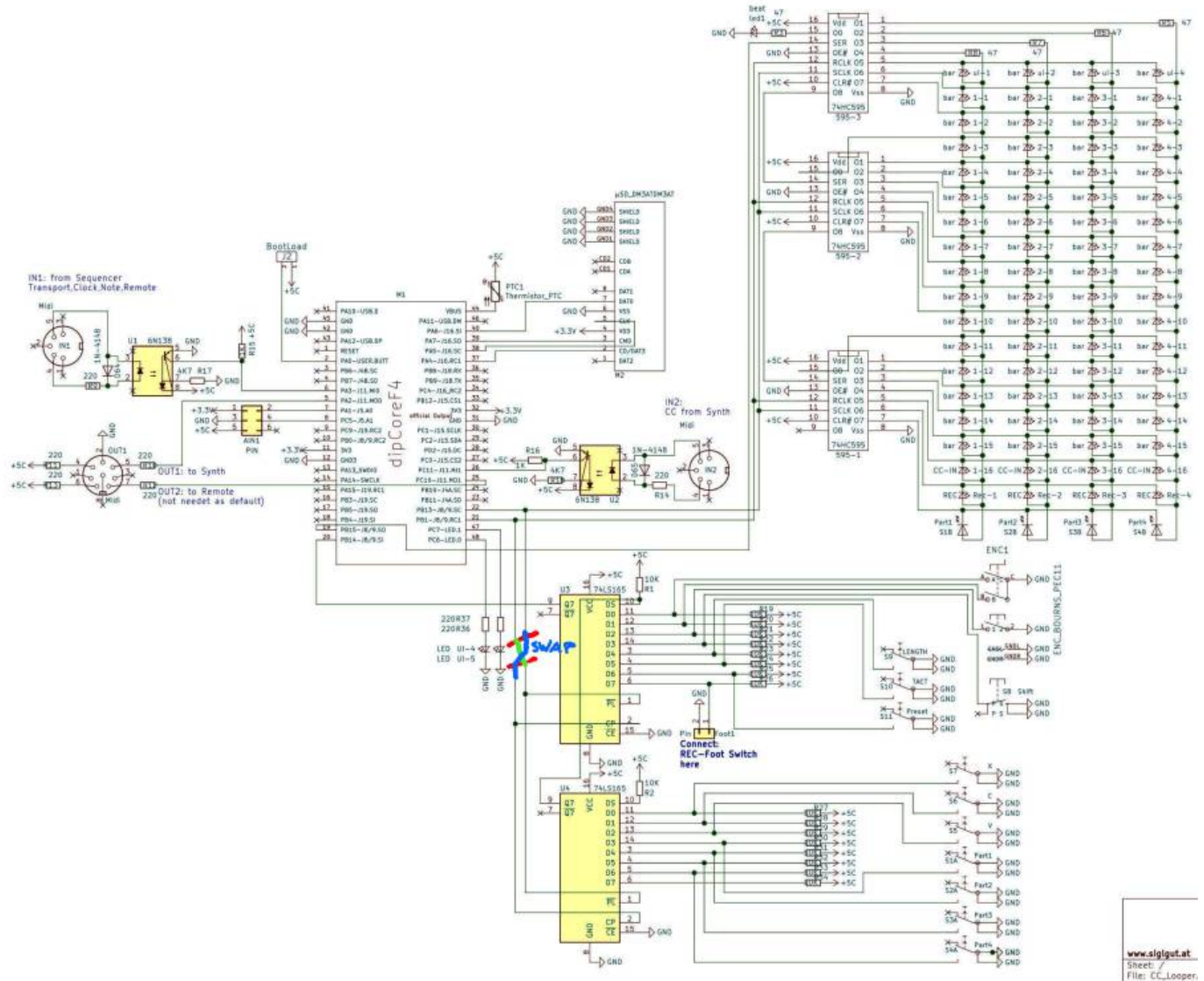
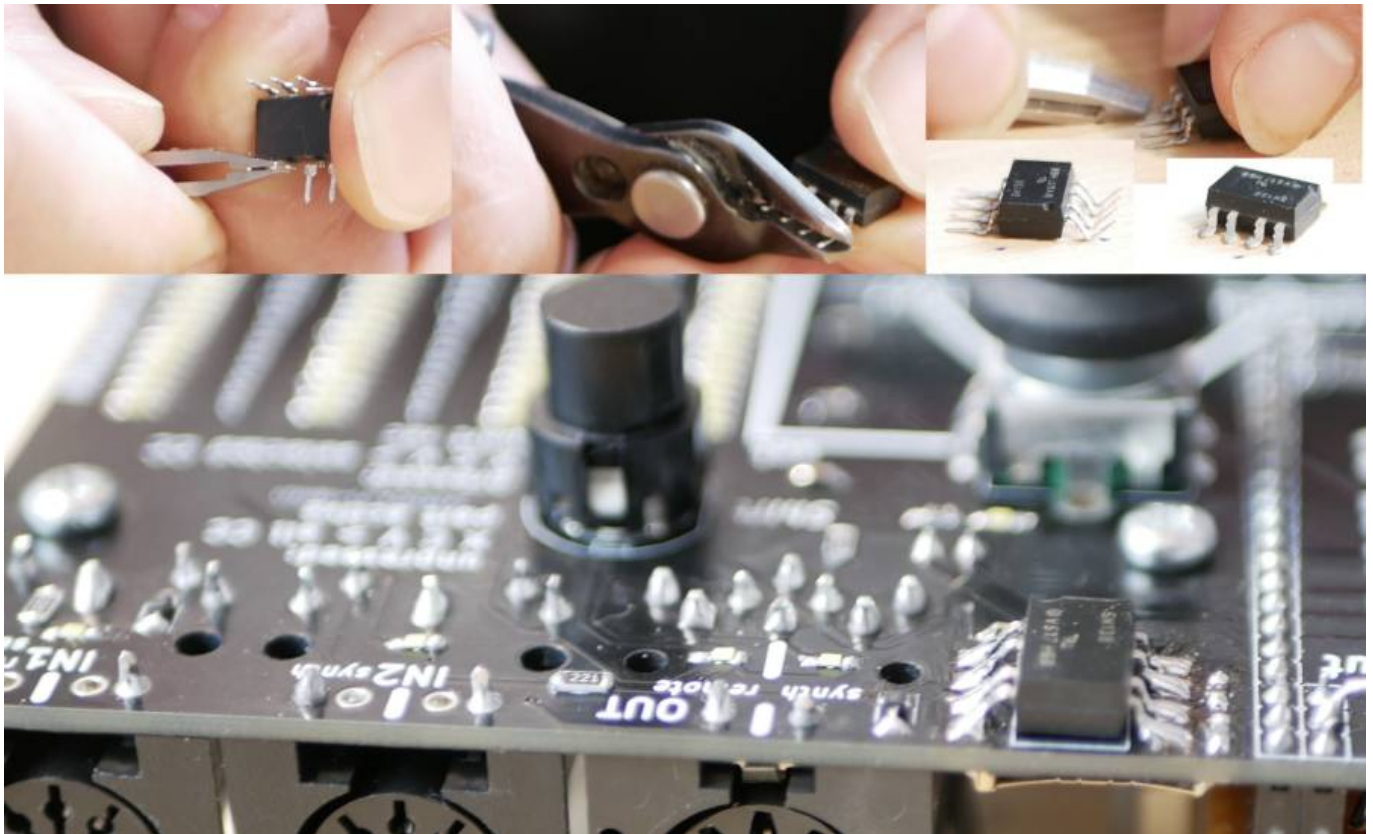
Building











Case

BOM

| Ref | Qty | Value | Footprint | MouserPart | |
|--|-----|------------------------|--------------------------|----------------------|------------------------|
| C1 - C7 | 7 | 100nF | 0603 Capacitor | 81-GRM33C71C104ME14D | Mouser |
| Rec-1 - Rec-4, UI-5 UI-4, led1, -1 -2 -3 -4 | 11 | REC, LED, beat, CC-IN, | 0603 LED | 630-ASMT-RR45-AQ902 | Mouser |
| 1-16 (LED-BAR) | 64 | bar | 0603 LED | 755-SMLEN3WBC8W1 | Mouser |
| D64 D65 | 2 | 1N-4148 | 1206 Diode | 833-1N4148W-TP | Mouser |
| PTC1 | 1 | Thermistor_PTC | 1206 Resistor | 576-1206L150THWR | Mouser |
| R1, R2, R19 - R34 | 18 | 10K | 1206 Resistor | 603-AC0603FR-0710KL | Mouser |
| R3 R5 R6 R7 R8 | 5 | 47 | 1206 Resistor | 603-RC0603FR-0747RL | Mouser |
| R9-R14, R36, R37 | 8 | 220 | 1206 Resistor | 603-RC0603FR-07220RL | Mouser |
| R15 R16 | 2 | 1K | 1206 Resistor | 603-RC0603JR-071KL | Mouser |
| R17 R18 | 2 | 4K7 | 1206 Resistor | 603-RC0603FR-074K7L | Mouser |
| OUT1 | 1 | Midi | DIN-8-SDF-80J | 490-SDF-80J | Mouser |
| M1 | 1 | DIPCORE32_CMPNT_48P | 517-929870-01-20-RA | DIP-40 | Mouser |
| S8 | 1 | Shift | DT6 | 611-D6R00F1LFS | Mouser |
| S1 - S4 | 1 | Part1 | 611-SERWHAUOA | DTL2-1-LED | Mouser |
| S5 - S7, S9 - S10 | 6 | X,C,V,Len,Pre,Tac | 611-SERRDAUOA | DTL2-1-NO-LED | Mouser |
| ENC1 | 1 | ENC_BOURNS_PEC11 | ENC_BOURNS_PEC11+SW | 652-PEC11R-4215F-S24 | Mouser |
| IN1 IN2 | 2 | Midi | Midi-Socket-MAB5SH-DIN-5 | 566-MAB5SH | Mouser |
| Foot1 | 1 | Pin | | | |
| J2 | 1 | BootLoad | | | |
| AIN1 | 1 | PIN | | | |
| U1 U2 | 2 | 6N136 | SMDIP-8_W11.48mm | 782-6N136-X009 | Mouser |
| -595 | 3 | 74HC595 | SO-16-N | 621-74AHC595S16-13 | Mouser |
| U3 U4 | 2 | 74LS165 | SO-16-N | 595-SN74LS165ADR | Mouser |
| M2 | 1 | μSD_DM3ATDM3AT | MSD_DM3AT | 798-DM3AT-SF-PEJM5 | Mouser |

To Do

alot, beta test, programming the firmware, housing

Resources

KiCad-Dataccl-dipcore.7z

its based on a mixture off:

- [msq-cc-lre](#)
- [msq-cc-bcr](#)

but its a complete new design, and firmware

Community users working on it

- [Phatline](#) = Programming, Documentation...

Just let a Private message on the forum to user already involved.

I have 10 ProtoBoards here - i test one, and if it works, i can share them for Beta Testing-if you pay the postage

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