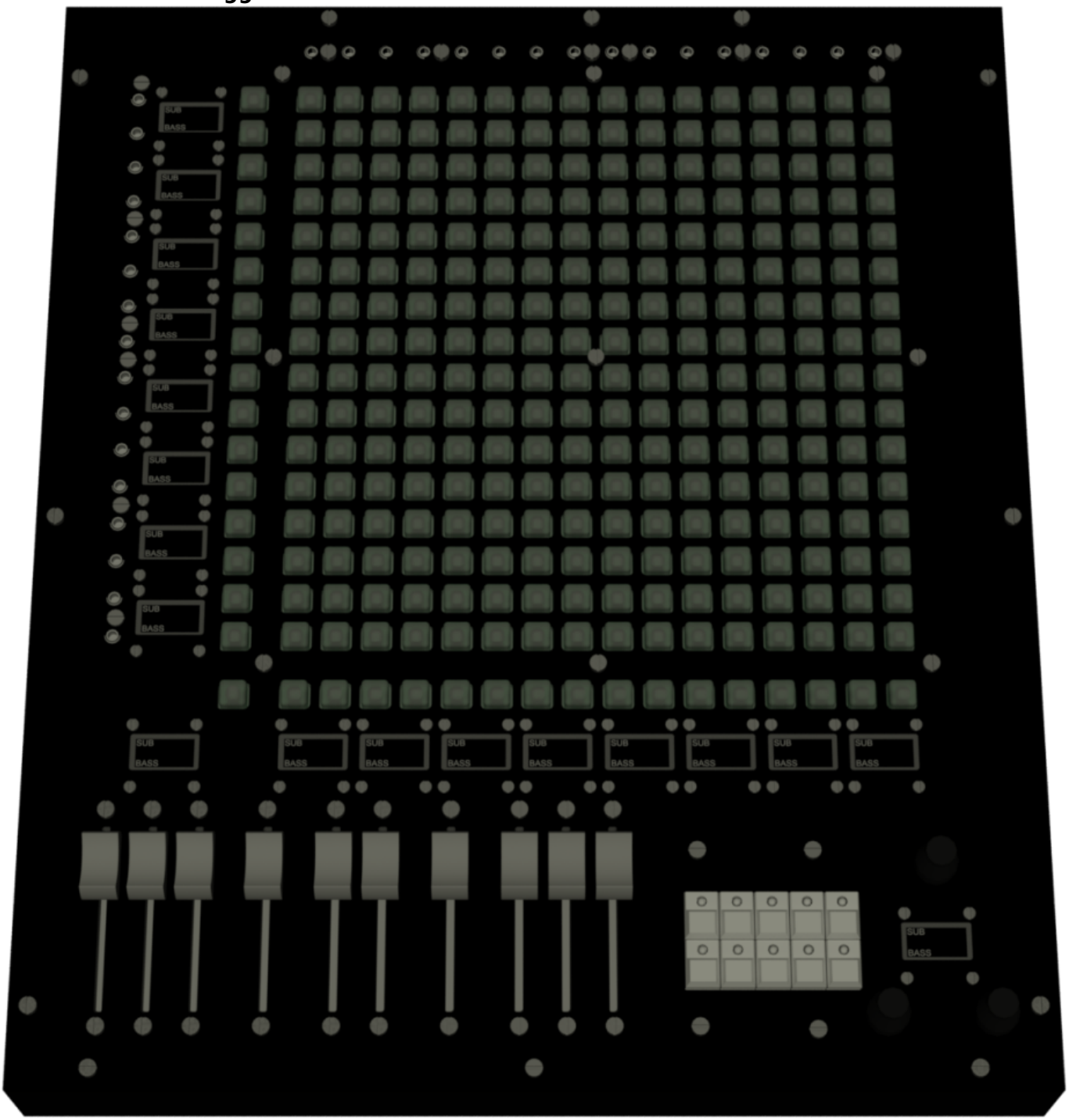
TriggerMatrix V5

first renders off Triggermatrix V5



TM-V5 uses custom PCBs
17 Screens now driven by the Display driver PCB
So the Matrix-Cells get names now in X and Y view
Trigger-Output on 5V Level (before it was all midi only)
Trigger-Input on 3V, 5V or Mic-Preamp-Level
The whole Device will be a bigger because of Extra Screens and because of 2×16 3.5 Trigger JAcks…

BOM + common Components

- 10x 10K Lin, Faders
- 8x Fader-Knob, BLACK
- 2x Fader-Knob, WHITE
- 17x OLED-Displays 128x64px 0,96"
- 144x M2 Nuts
- 72x M2 Discs
- 1x 26Pole Wire
- 3x Encoder Knob
- 1x Micro-SD-Card, which is not Hi-Capacity, eg take 4 or 8GB Cards!
- 2x Wood: 15 x 400 x 39mm, or > 16 x 400 x 39mm (39mm is minimal, i took 40mm...)
  Fix Me!
- 1x Wood: 15 x 335 x 39mm, or > 16 x 333 x 39mm (39mm is minimal, i took 40mm...)
  Fix Me!
- 3mm Alu Plates for Ground and Backpanel (you cut and drill it by your own)
  Fix Me!
- 3mm Alu Frontpanel, CNC-machined (See DXF-File for more info) Fix Me!
- 17x Leiterplatten Montageblock aka Standoffs
- 1x 0.5m Micro-USB-Cable this will be cut at the USB-A Side off the Cable, and then soldered to the USB-B Port off the Core4Disc-Board

M2 Screws

* 72 x 7-5-8mm (Displays) for example 100x 8mm

M3 Screws

— i buy more, so its cheaper, but you may order smaller quantitiys
* 20 x 3,5 - 4mm for example 1000x
* 14 x 8,5mm > for example 100x 10mm
* 13 x 14,5mm for example 100x 16mm
* 19 x 17,25mm for example 100x 20mm
* 8 x 54mm - if not accessable you may drill the Panel to 4mm: 8x 60mm M4 Screws
* optional 10 x 6mm for example 100x 6mm
* optional 3mm Discs for example 100x Discs
* lots off M3 Nuts for example 1000x

Other Screws

* 2x Woodscreews 15-20mm for example 50x 20mm

PCB + their Components

- TM5-GateInput Levelshifter 5V>3V and Preamp for Gate/Trigger-Input
- TM5-codeblock Menuesection
- TM5-Gate-Board 3,5 Jack Boards for 16 + 16 Gates
- TM5-DinDoutGate Module for UI and Gates
- Core4Disc CoreBoard for STM32F407VGT6 Discovery Boards, with some onboard Peripheral
- Core4DiscMidiEx Midi-Expansion Board for Core4Disc
- DisplayDriver-SMD Display Driver for 18x SSD1306 7Pin Displays
- BLM16x16V2 16×16 Button Led Matrix

Complete BOM for Boards above

copy following list into this mouser.com-Link

```
595-SN74LVC1G17DBVR|12
80-C0805C104M5R|32
710-860010273011|1
863-BAT54LT1G|34
595-SN74HC595DR|15
595-SN74HC165DT|5
710-61201021621|2
863-BC818-40LT1G|34
660-RK73B2ATTD102J|34
660-RK73B2ATTD103J|75
603-RC0805JR-13220RL|40
660-RK73H2ATTD56R0F|40
604-APTR3216ZGC|300
604-APTR3216QBC/D|300
833-1N4148WL2-TP|150
652-PEC11R-4015F-S24|3
649-1012937890401BLF|1
517-30310-6002|5
571-1-2178710-0|4
490-SJ1-3535NG|32
667-ERJ-P06J102V|32
495-TSR2-2450|1
538-67068-8000|1
583-1N5818-T|1
649-1012938390801ALF|1
806-KCDX-5S-S2|4
511-STM32F407G-DISC1|1
490-PJ-079BH|1
611-1101M2S4AV2BE2|3
538-89485-8000|1
```

```
649-75869-232LF|1
806-KCDX-5S-S2|4
660-RK73B2BTTD221J|2
710-61200823021|22
```

Order from Reichelt:
2x 1x20Pin Male 2,54mm Header
4x 2x5Pin FeMale 2,54mm Header
32x Jumper
10x Button
10x PinHeader 2x5Pin Female
6x Micromatch-connector 10pin
2x 2x25Pin Female 2,54mm Heades
1x 1x20Pin Male 2,54mm Header
1x 2x10Pin Male 2,54mm Header
5x 2x5Pin FeMale 2,54mm Header
4x 2x4Pin Female 2,54mm Header
2x Female Pinheader 1x7pin
17x Female Pinheader 1x7pin
2x PinHeader 2x5Pin Female
20x M3 5mm long Spacer

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```

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32x Jumper
10x Button
10x PinHeader 2x5Pin Female
6x Micromatch-connector 10pin
2x 2x25Pin Female 2,54mm Heades
1x 1x20Pin Male 2,54mm Header
1x 2x10Pin Male 2,54mm Header
5x 2x5Pin FeMale 2,54mm Header
4x 2x4Pin Female 2,54mm Header
2x Female Pinheader 1x7pin
17x Female Pinheader 1x7pin
2x PinHeader 2x5Pin Female
20x M3 5mm long Spacer

Community users working on it

- **Phatline** = Programming, Documentation, Hardware-Prototype, Testing, Jamin...

Getting Involved ?

Just let a Private message on the forum to user already involved.
or join the forum: Triggermatrix 5

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