

# 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-Preamplifier-Level

The whole Device will be a bigger because of Extra Screens and because of 2x16 3.5 Trigger JAKcs...

## 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)
- 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

 **Fix Me!**

### 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 quantiys

- \* 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 Woodscrews 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-RK73B2BTDD221J|2  
710-61200823021|22

### Order from Reichelt:

- 21x [2x5Pin FeMale 2,54mm Header](#)
- 32x [Jumper](#)
- 10x [Button](#)
- 6x [Micromatch-connector 10pin](#)
- 2x [2x25Pin Female 2,54mm Heades](#)
- 3x [1x20Pin Male 2,54mm Header](#)
- 1x [2x10Pin Male 2,54mm Header](#)
- 4x [2x4Pin Female 2,54mm Header](#)
- 19x [Female Pinheader 1x7pin](#)
- 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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