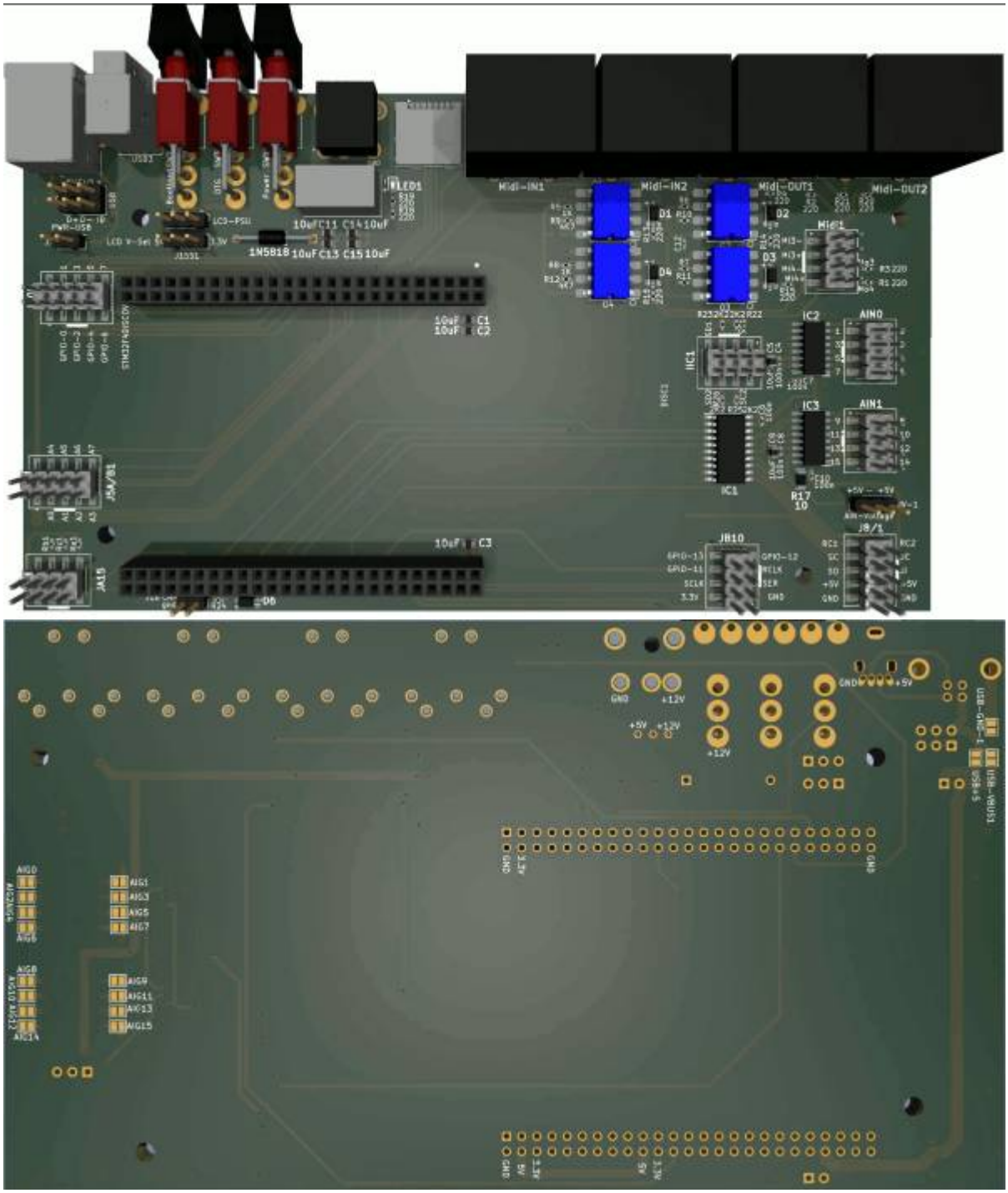
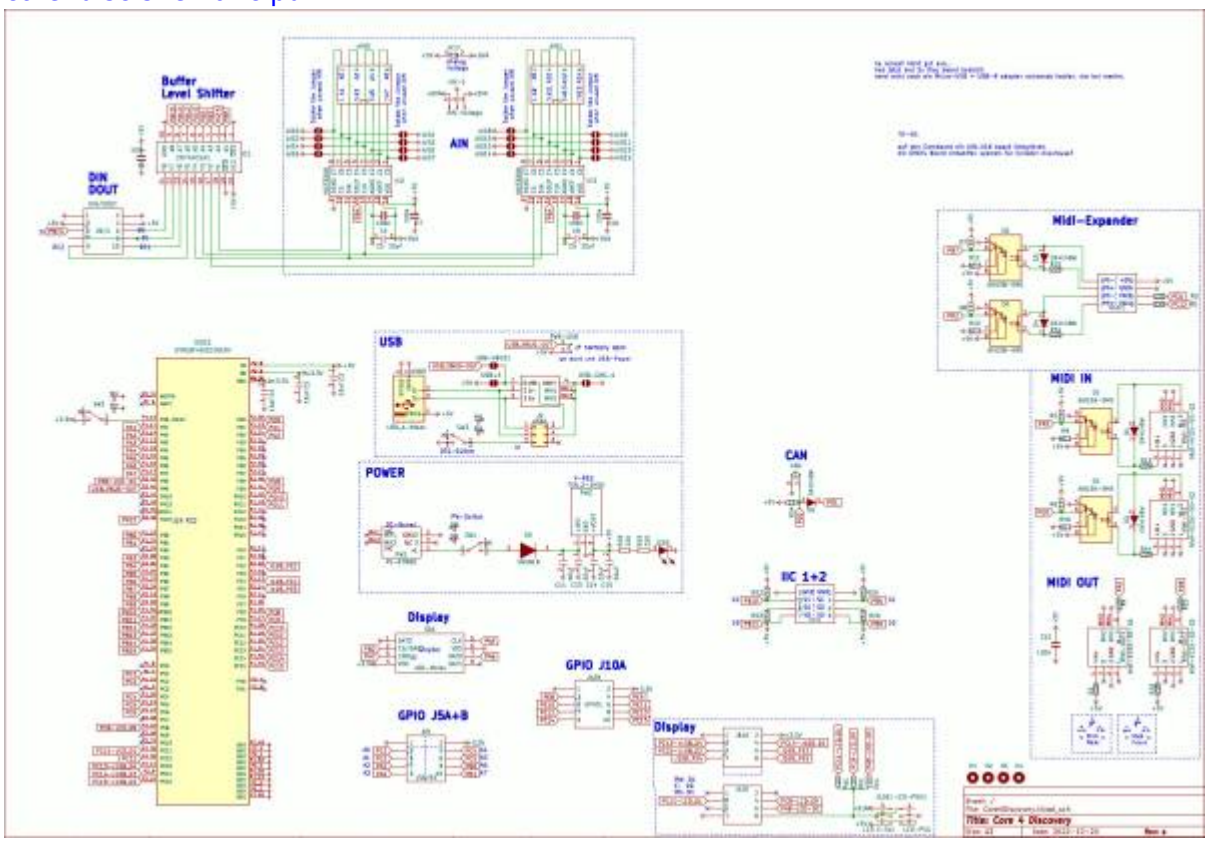
Core 4 Discoveryboard STM32F407VGT6



this is one essential part for my triggermatrix5
i need a core pcb which is aviable in Europe, and uses the stm32F407VGT6 chip, which has 1MB ram...

Shematic

core4disc-shematic.pdf



Building and BOM

parts off it is pick and place the other part is handsolder

BOM

the LCSC Parts are done with the Pick and place - so no need to order...

Comment	Designator	LCSC	Lot
SN74HC541	IC1	C116811	1
1K	Ra1,Rb1,Rc1,R5,R6,R7,R8,R24	C11702	8
J10B	GPIO1	C124391	1
AIN	J5A/B1	C124391	1
DIN/DOUT	J8/1	C124391	1
MCP3208	IC2,IC3	C16939	2
10	R17	C17902	1
6N138-SMD	O1,O2,O3,O4	C188666	4
Pin-Header-2×4-SMD-doubleSizeSymbol	AIN0,AIN1	C192300	2

Comment	Designator	LCSC	Lot
J4A+B	IIC1	C192300	1
J15A	JA15	C192300	1
J10B	JB10	C192300	1
-	Midi1	C192300	1
LED	LED1	C2286	1
220	R1,R2,R3,R4,R13,R14,R15,R16,R18,R19,R20,R21	C25091	12
2K2	R22,R23,R25,R26	C25879	4
4K7	R9,R10,R11,R12	C25900	4
100n	C4,C6,C7,C8,C10,C12	C307331	6
10uF	C1,C2,C3,C5,C9,C11,C13,C14,C15	C440198	9
uSD-Molex	SD1	C585350	1
1N4148W	D1,D2,D3,D4,D6	C81598	5

The Mouser parts that have to be soldered by hand - you have to order them on your own...:

Comment	Designator	MouserNumber	Lot
PW2	TSR_2-2450	495-TSR2-2450	1
USB1	USB-B-Socket	538-67068-8000	1
D5	1N5818	583-1N5818-T	1
Midi1	-	649-1012938390801ALF	1
Midi-IN1, Midi-IN2, Midi-OUT1, Midi-OUT2	Midi-KCDX-5S-S2	806-KCDX-5S-S2	4
AIV-1	AIN-Voltage	Pin Header	1
DISC1	STM32F4DISCOVERY	511-STM32F407G-DISC1	1
J1	PWR-USB	Pin Header	1
J2	USB Pin	Header	1
J15S1	LCD V-Sel	Pin Header	1
J18	CAN	Pin Header	1
LCD-PSU1	LCD-PSU	Pin Header	1
PW1	PJ-079BH	490-PJ-079BH	1
SW1	Power	611-1101M2S4AV2BE2	1
SW2	Bootload	611-1101M2S4AV2BE2	1
SW3	OTG	611-1101M2S4AV2BE2	1
USB3	USB_A-Molex	538-89485-8000	1
IDC-Connector	2×4 Male	710-61200823021	4

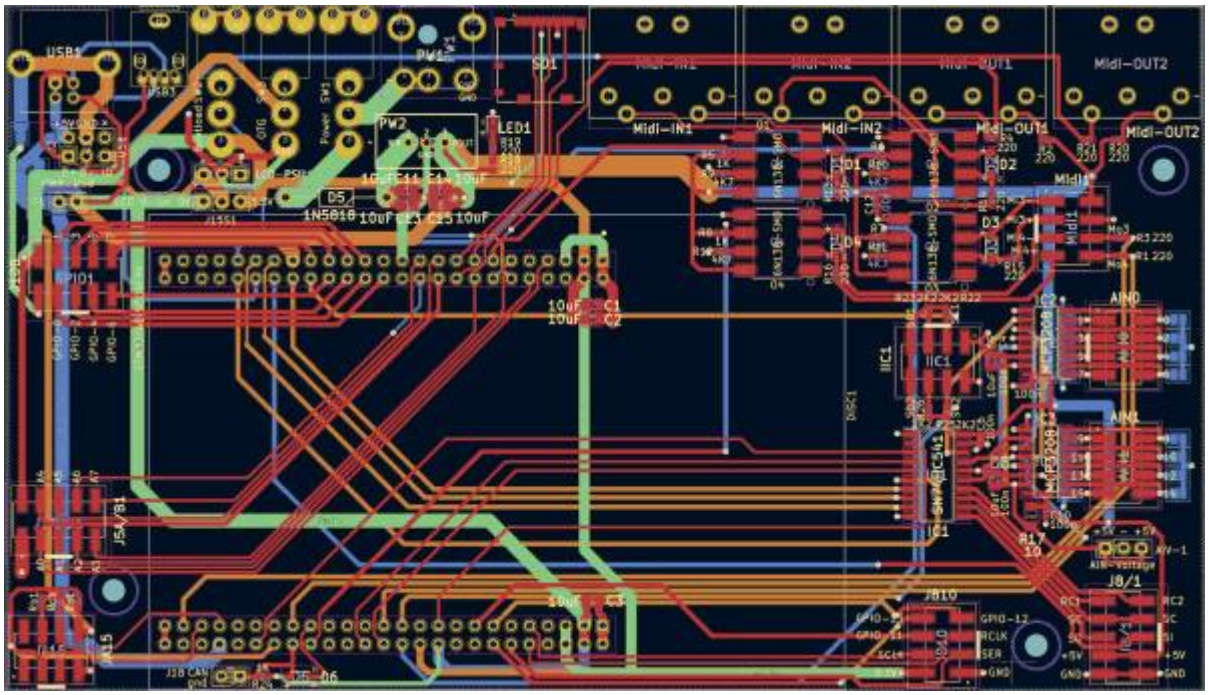
Order-List

copy following list into this mouser.com-Link

```
495-TSR2-2450|1
538-67068-8000|1
583-1N5818-T|1
649-1012938390801ALF|1
806-KCDX-5S-S2|4
Pin Header|1
```

511-STM32F407G-DISC1|1
490-PJ-079BH|1
611-1101M2S4AV2BE2|1
611-1101M2S4AV2BE2|1
611-1101M2S4AV2BE2|1
538-89485-8000|1
710-61200823021|4

Order from Reichelt:
2x 2x25Pin Female 2,54mm Headers
1x 1x10Pin Female 2,54mm Headers
1x 2x10Pin Female 2,54mm Headers
5x PinHeader 2x5Pin Female



To Do

waiting for the assembled Prototype

Community users working on it

- **Phatline** = PCB & Shematic, UI-Programming, Documentation...

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

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