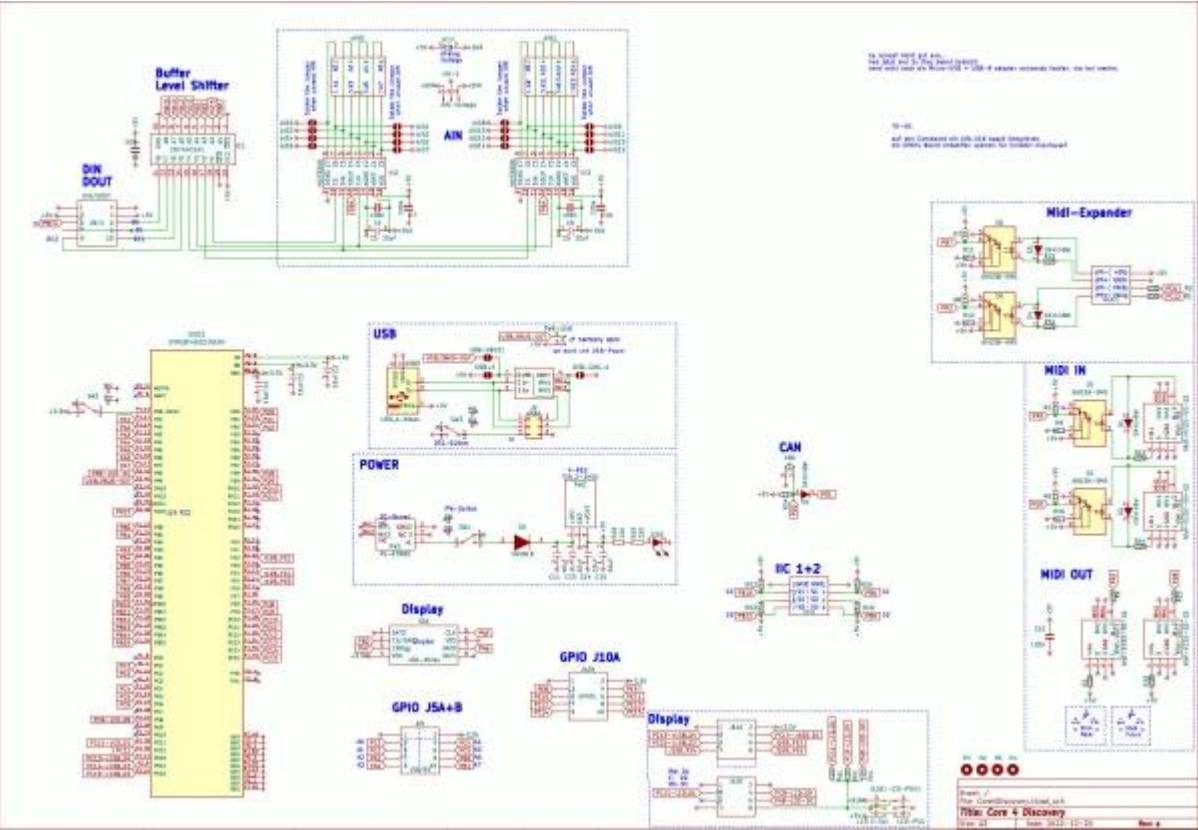




# Schematic

[core4disc-schematic.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-2x4-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                            | 2x4 Male         | 710-61200823021      | 4   |

## Order-List

copy following list into this [mouser.com-Link](https://www.mouser.com)

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

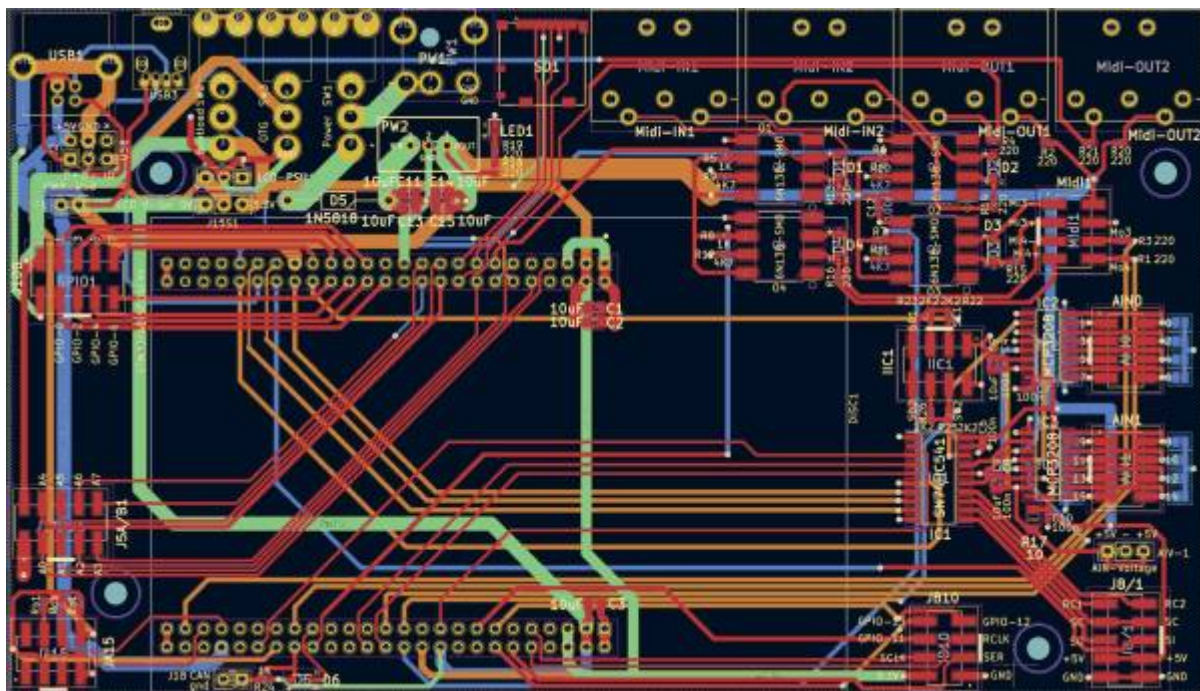
511-STM32F407G-DISC1|1  
 490-PJ-079BH|1  
 611-1101M2S4AV2BE2|1  
 611-1101M2S4AV2BE2|1  
 611-1101M2S4AV2BE2|1  
 538-89485-8000|1  
 517-89110-0101|4  
 710-61200823021|4

### Order from Reichelt:

2x 2x25Pin Female 2,54mm Headers

1x 1x10Pin Female 2,54mm Headers

1x 2x10Pin Female 2,54mm Headers



## To Do

waiting for the assembled Prototype

## Community users working on it

- **Phatline** = PCB & Schematic, 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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