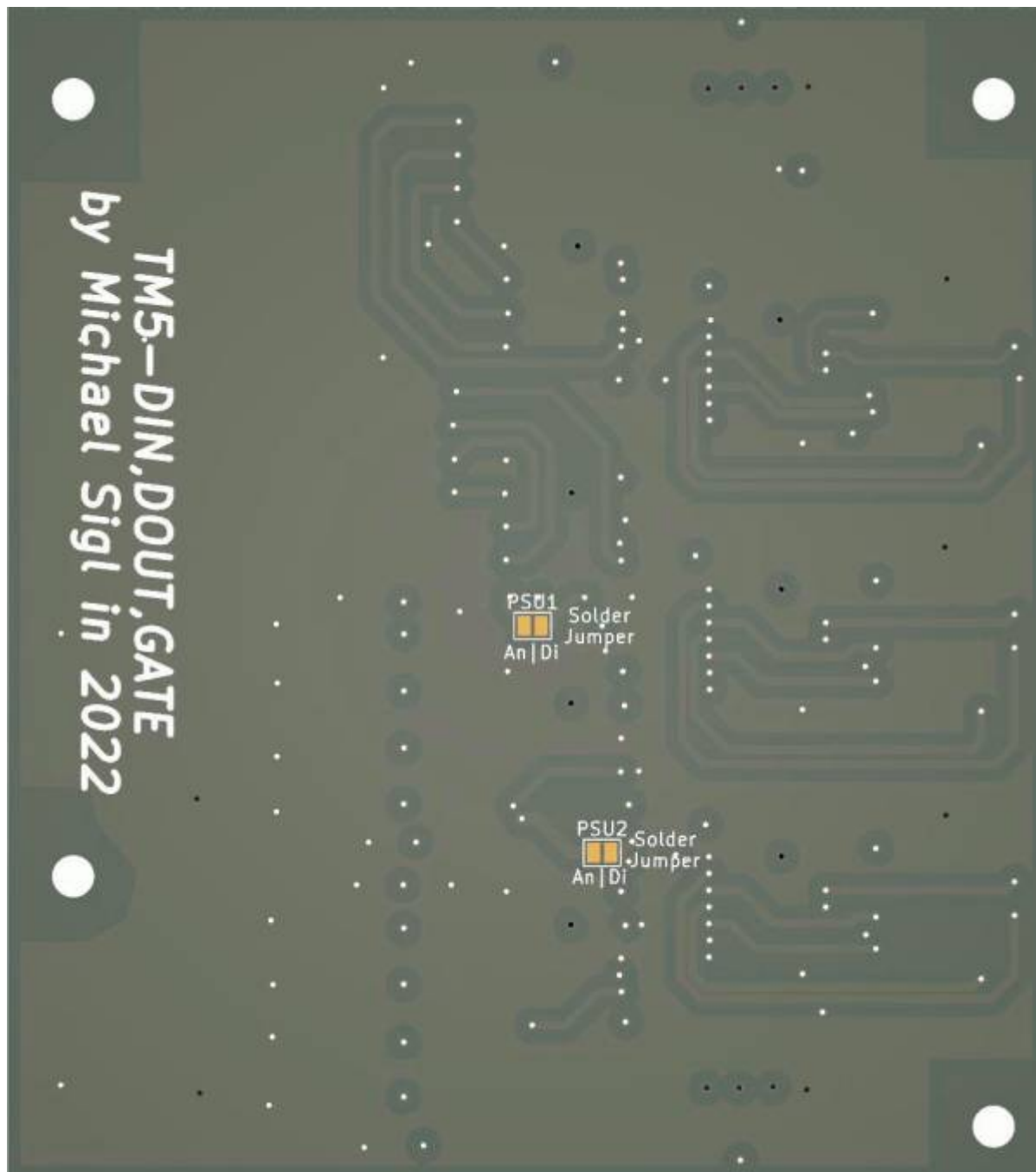


# TM5-DinDoutGates





you need this PCB 1x for [triggermatrix5](#)

**it gives;**

24 Digital Inputs

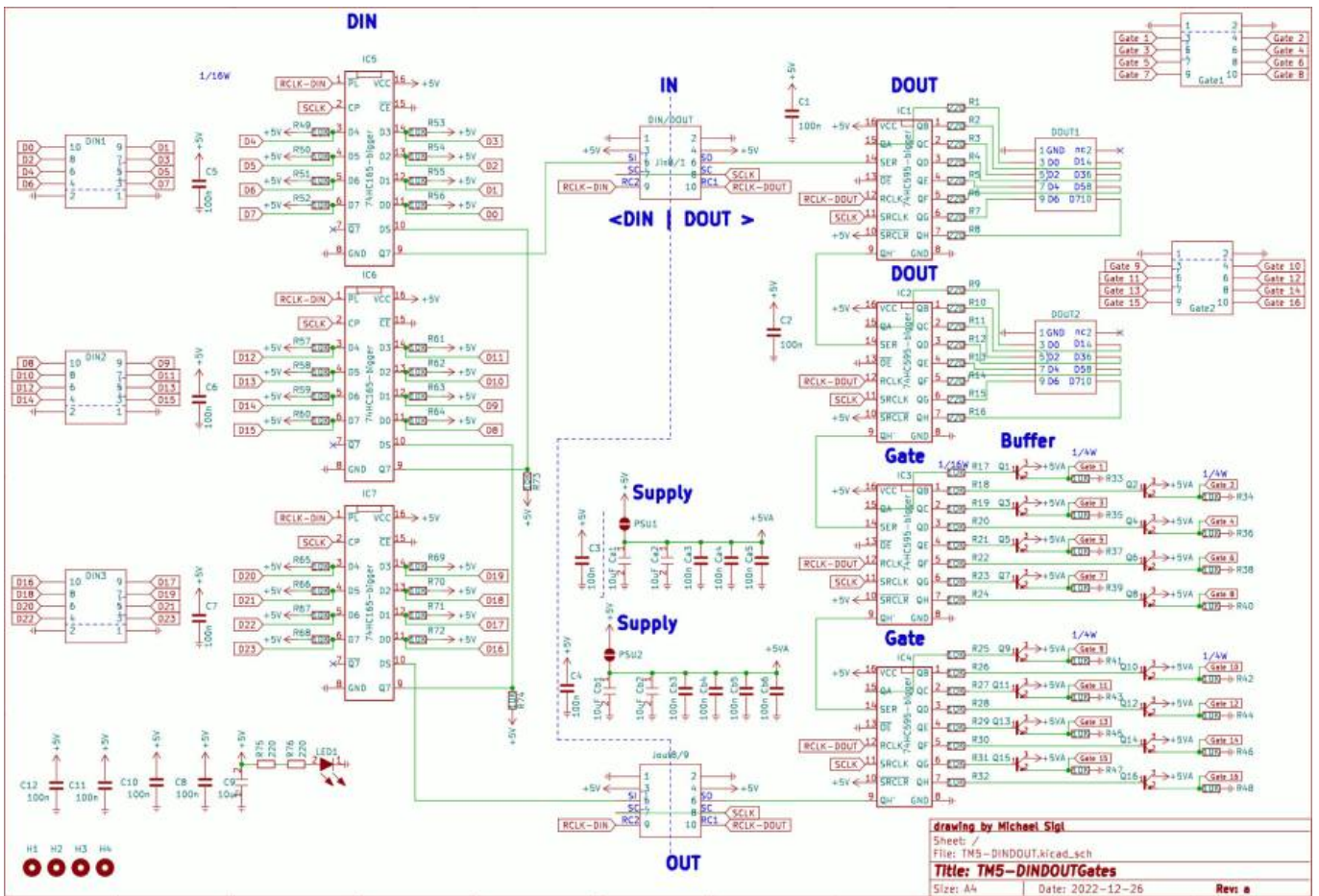
32 Digital Outputs

\* while 16 Outputs are used for UI

\* the other 16 are buffered, and are for use as 16 GAtE/TriggEr output at 5V Level

The Board is fully SMD, and made for pick and place - so no soldering required!

# Schematic



## Building and BOM

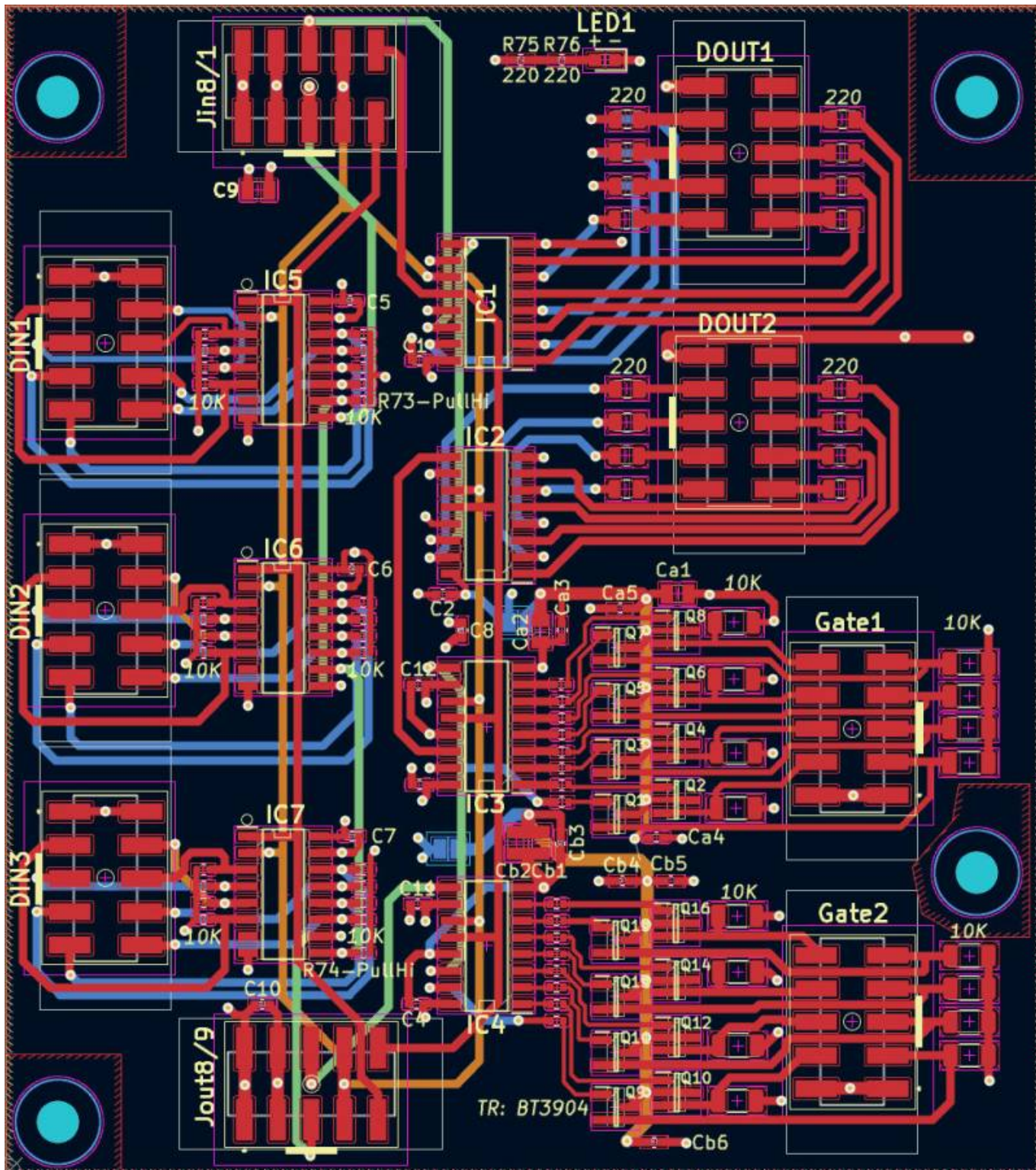
Its build by pick and place robots... so no need to build, or order any component

### BOM

Follwing list is for reference, and debugging only, no need to order them! all the parts are already soldered on the PCB!

| qty | reference                                   | value          | footprint       | jlc     |
|-----|---|----------------|-----------------|---------|
| 18  | C1 - C12, Ca3, Ca4, Ca5, Cb3, Cb4, Cb5, Cb6 | 100n           | C_0402          | C307331 |
| 5   | C9, Ca1, Ca2, Cb1, Cb2                      | 10uF           | C0805           | C440198 |
| 5   | DIN1, DIN2, DIN3, Gate1, Gate2              | Gates          | Pin-Head-10-SMD | C124391 |
| 4   | DOUT1, DOUT2, jin8/1, jout8/9               | DIN/DOUT       | Pin-Head-10-SMD | C124391 |
| 4   | IC1, IC2, IC3, IC4                          | 74HC595-bigger | HC595-smd       | C5947   |
| 3   | IC5, IC6, IC7                               | 74HC165-bigger | HC165-smd       | C5613   |
| 1   | LED1  | LED            | LED-0603        | C2286   |

| qty | reference | value        | footprint    | jlc    |
|-----|-----------|--------------|--------------|--------|
| 16  | Q1 - Q16  | MMBT3904-7-F | MMBT3904-7-F | C20526 |
| 16  | R1 - R16  | 220          | R_0805       | C25294 |
| 42  | R17 - R74 | 10K          | R_0402       | C25744 |
| 16  | R33 - R48 | 10K          | R_1206       | C17902 |
| 2   | R75, R76  | 220          | R_0402       | C25091 |



# 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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