

B@t-Detektor

Building the circuit board

WIR.
SCHAFFEN.
BILDUNG.

Jochen Pfeifer

Jochen.pfeifer@ph-gmuend.de



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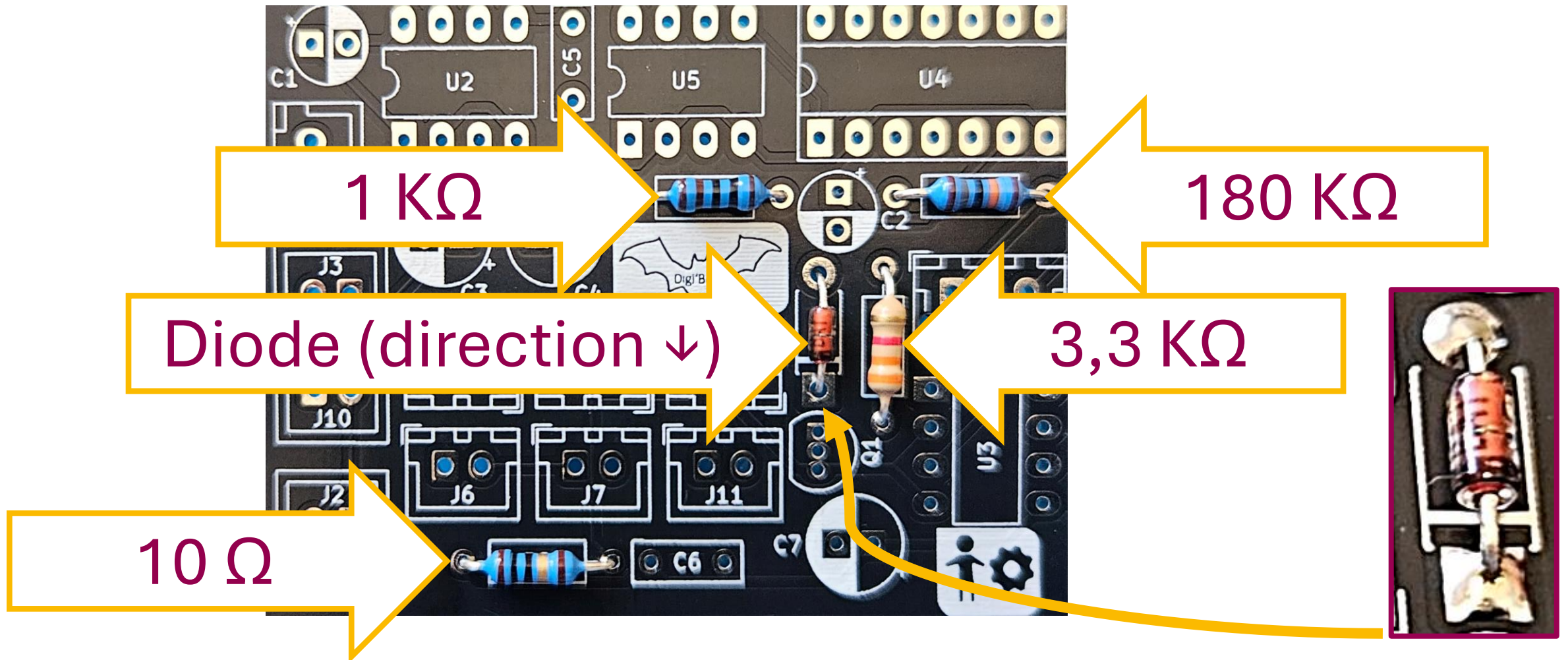
1. Required parts

These components are needed for the assembly:

- PCB (Printed Circuit Board)
- Resistors (10 Ω , 1 k Ω , 3,3 k Ω , 180 k Ω)
- Schottky diode
- IC sockets (3 x 8-pin, 1 x 14-pin)
- Darlington-transistor (BC517)
- JST-XH sockets (10 x 2-pin, 1 x 3-pin)
- Film capacitors (2 x 47 nF)
- Electrolytic capacitors (3 x 220 μ F, 2 x 10 μ F)
- Audio amplifier ICs (3 x LM386)
- Binary divider (CD4024)

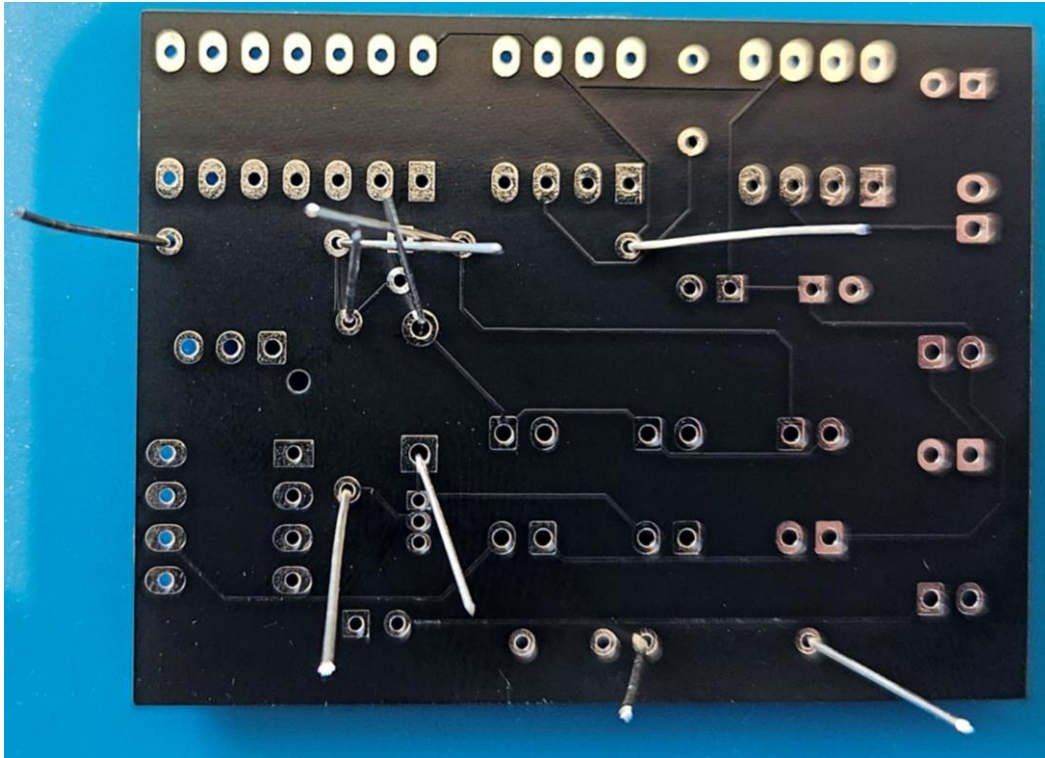


2. Install the resistors and the diode

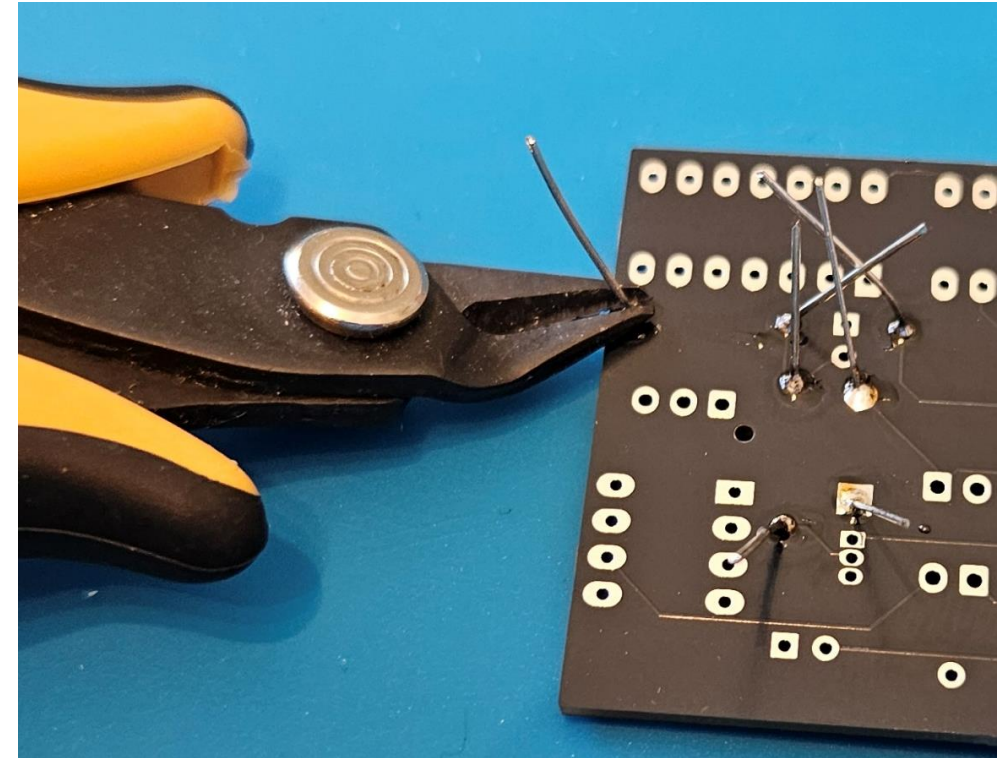


2. Install the resistors and the diode

Fix the parts by bending the wires outwards for soldering.

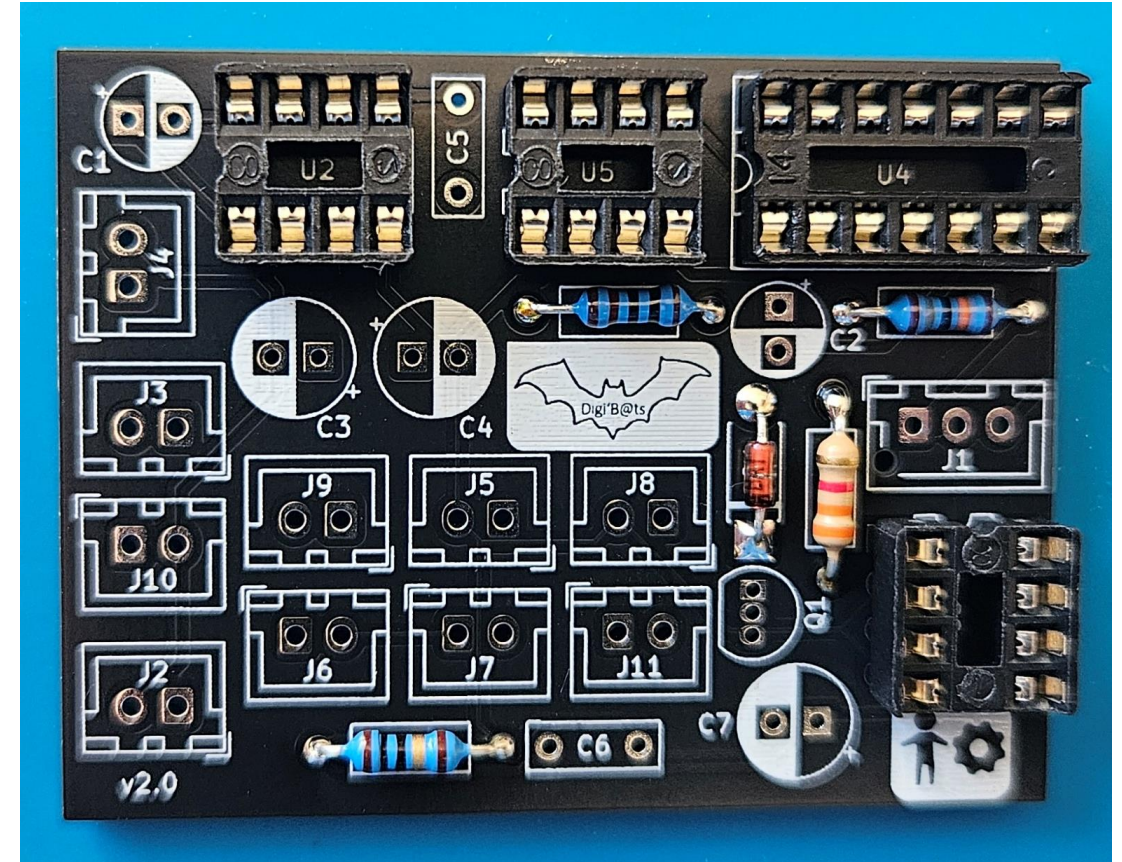
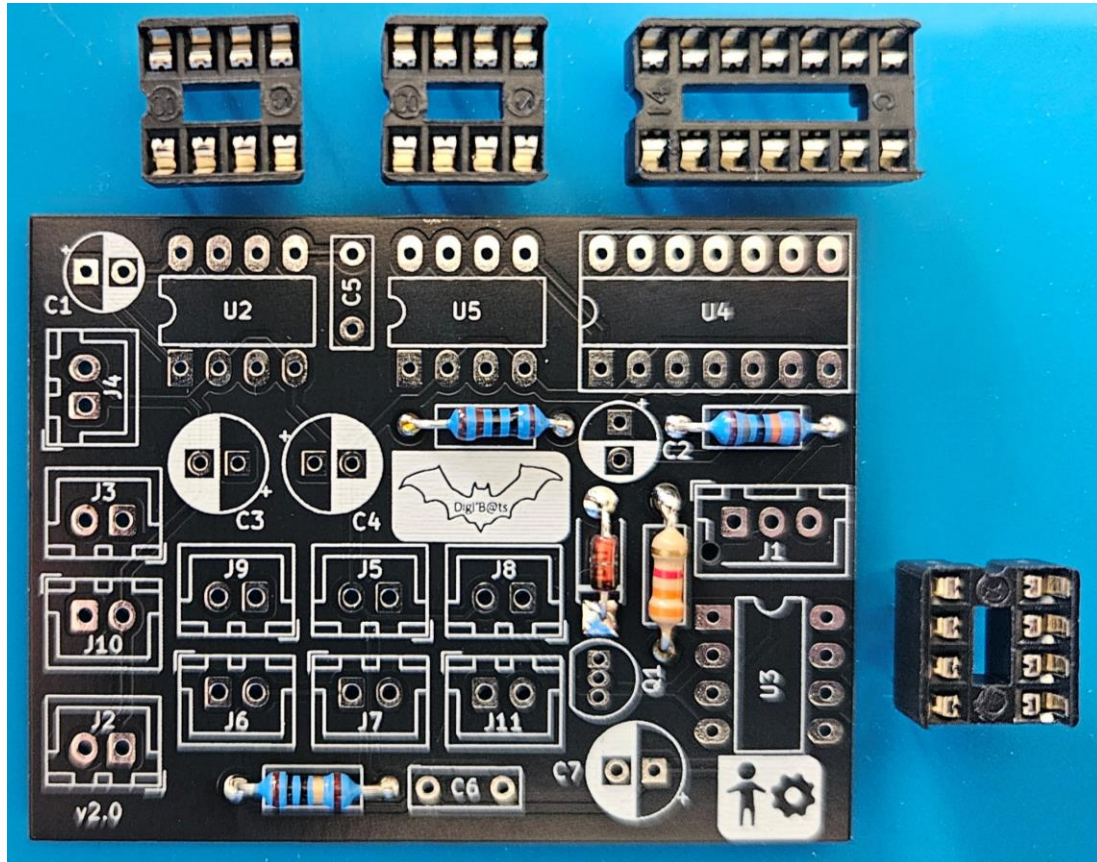


Cut the wires after soldering.



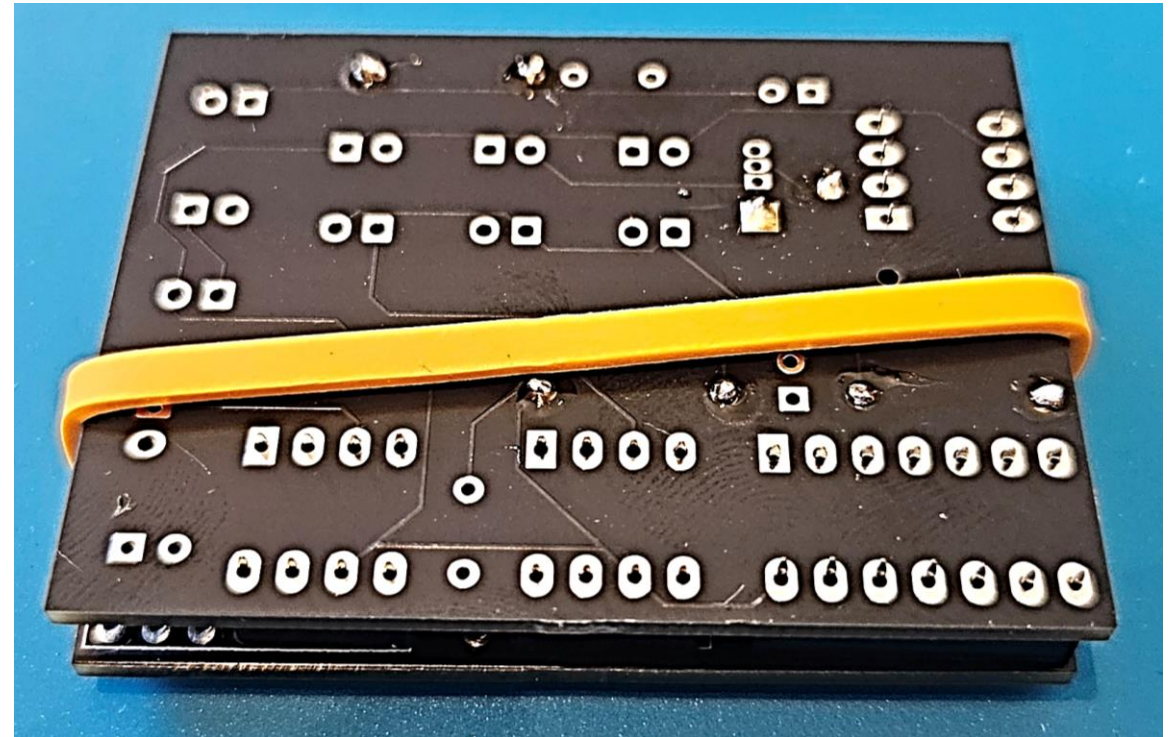
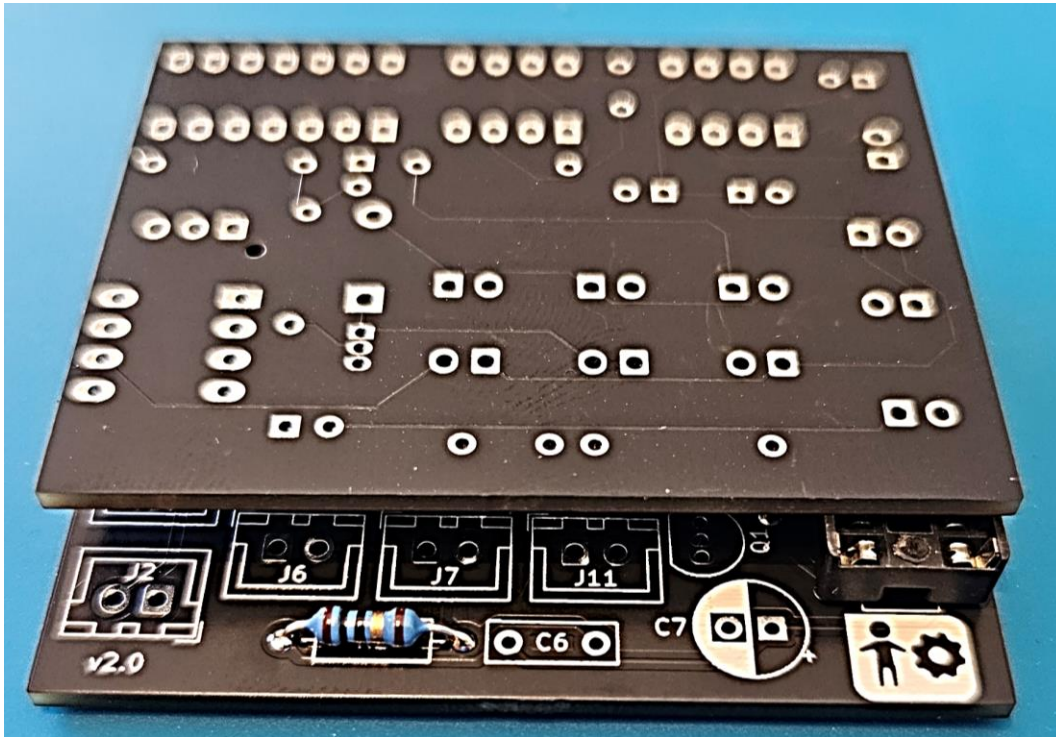
3. Install the IC-sockets

Place the notches according to the silkprint



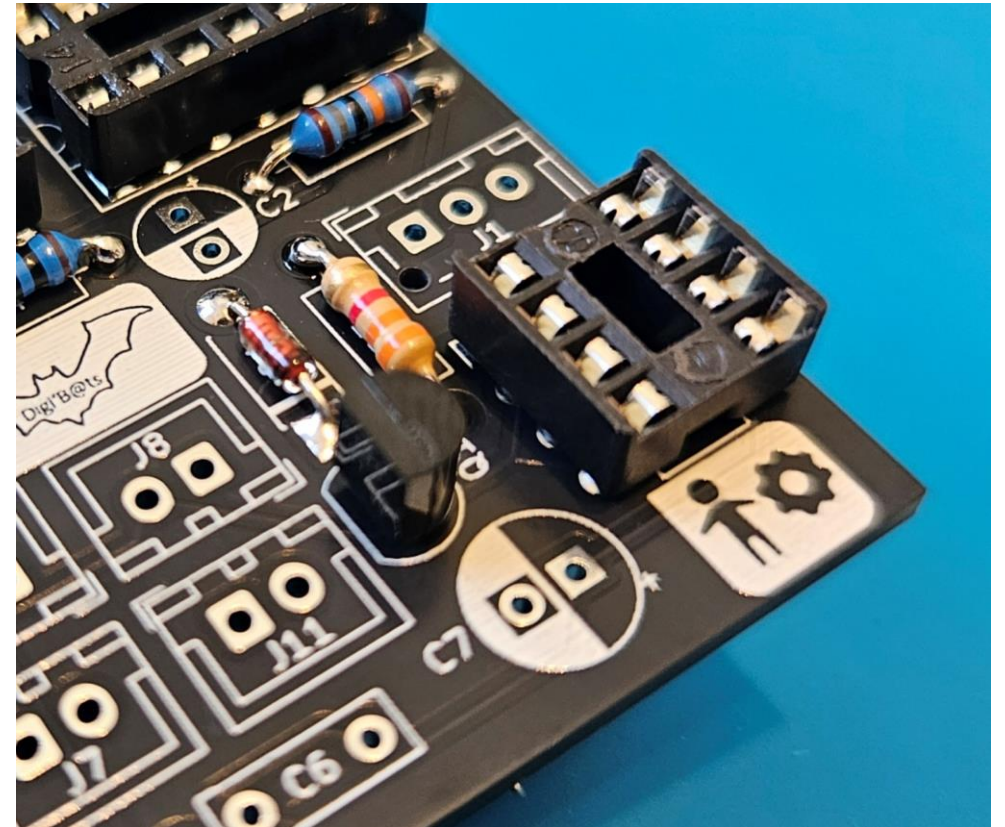
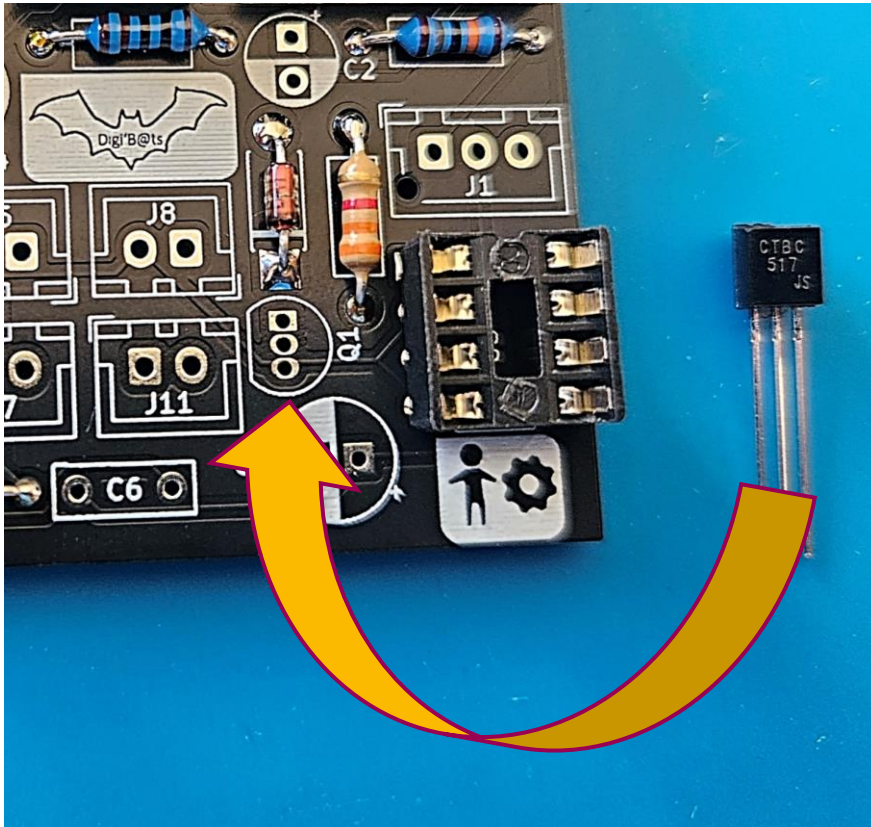
3. Install the IC-sockets

Fix the parts to flip the board for soldering



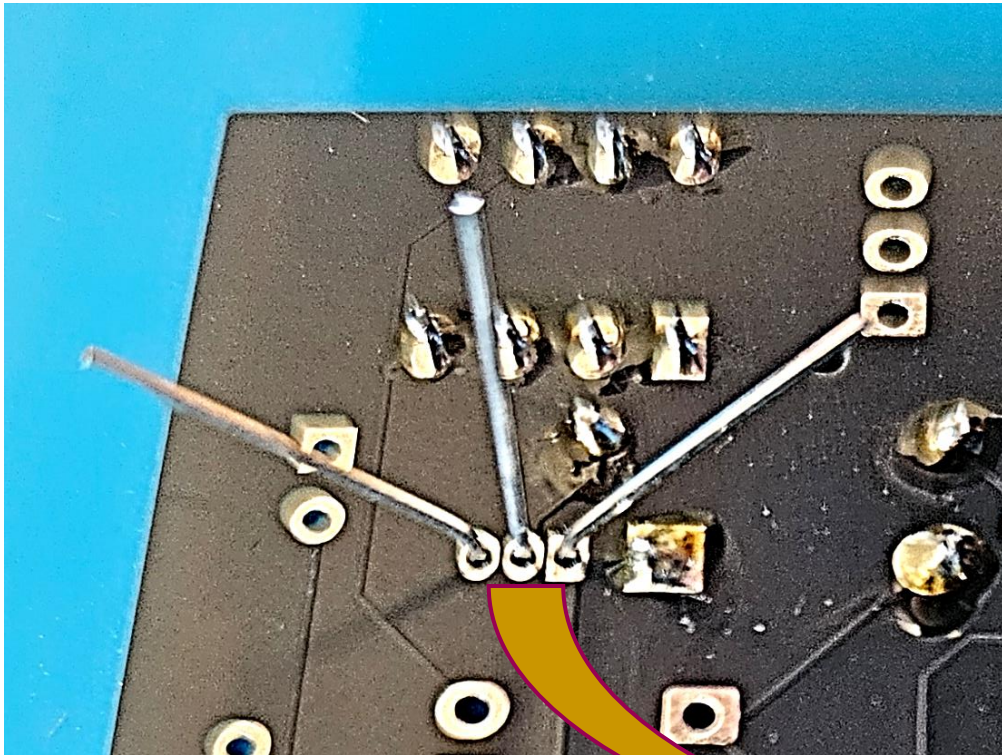
4. Install the transistor

Place the flattened side according to the silkscreen

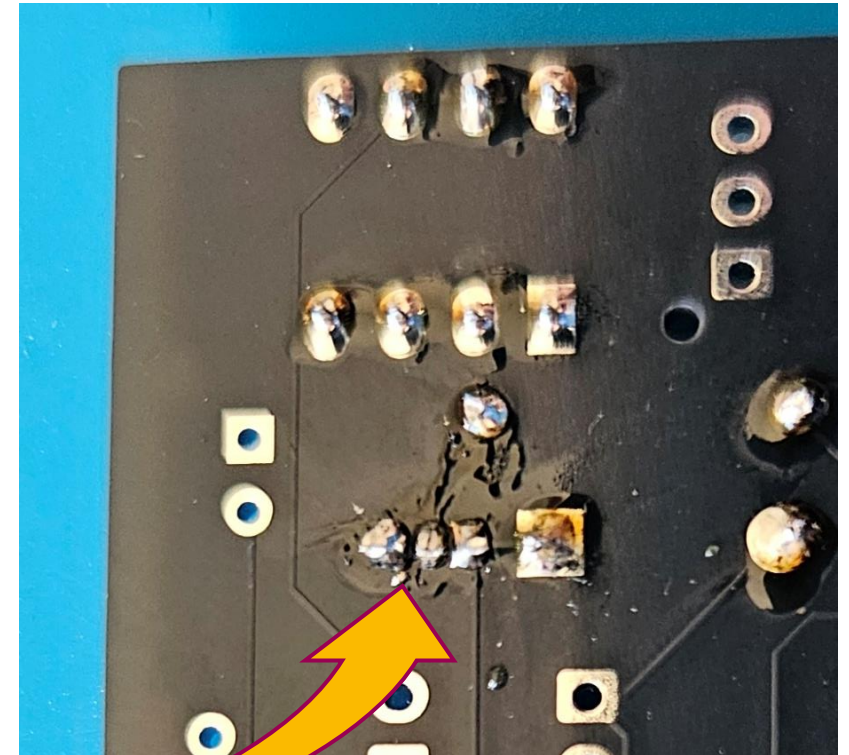


4. Install the transistor

Fix it by bending the wires outwards for soldering.

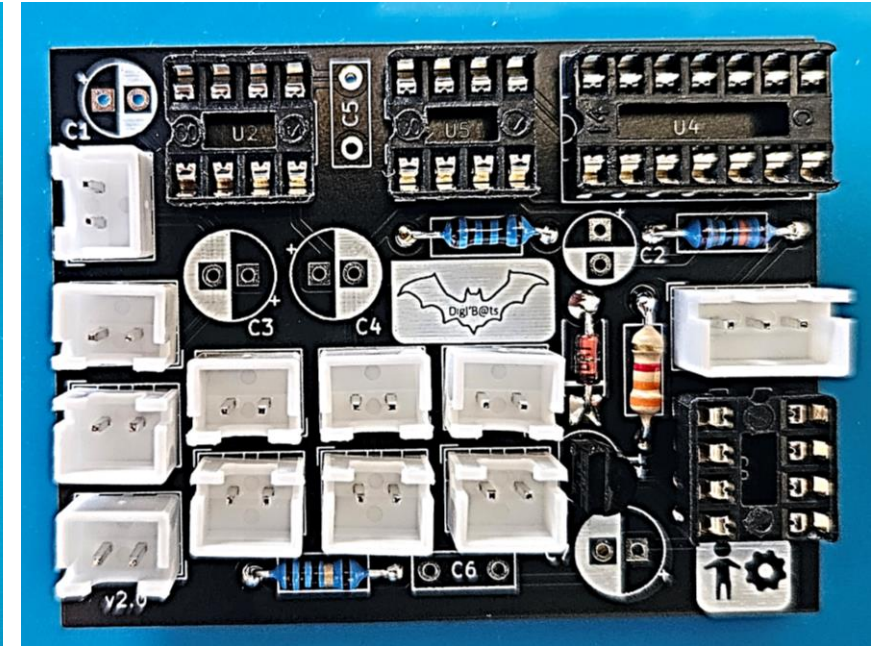
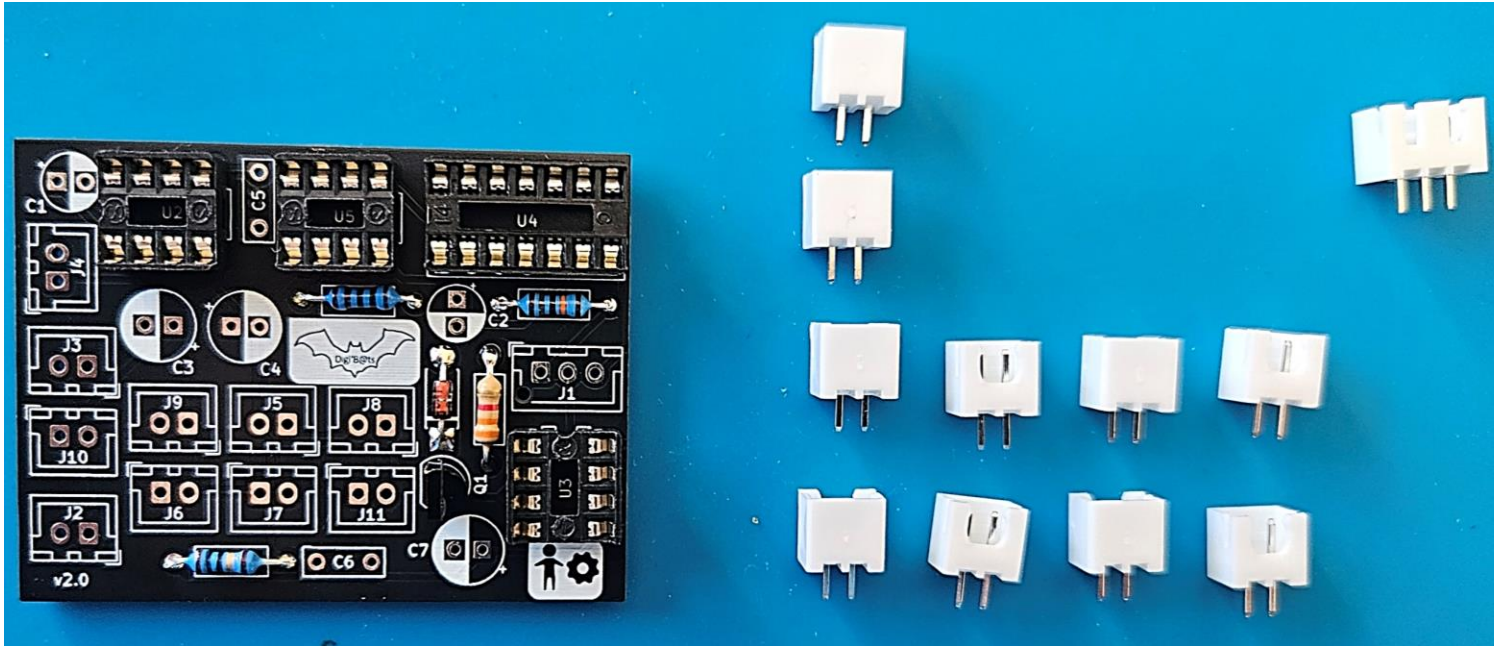


Cut the wires after soldering.



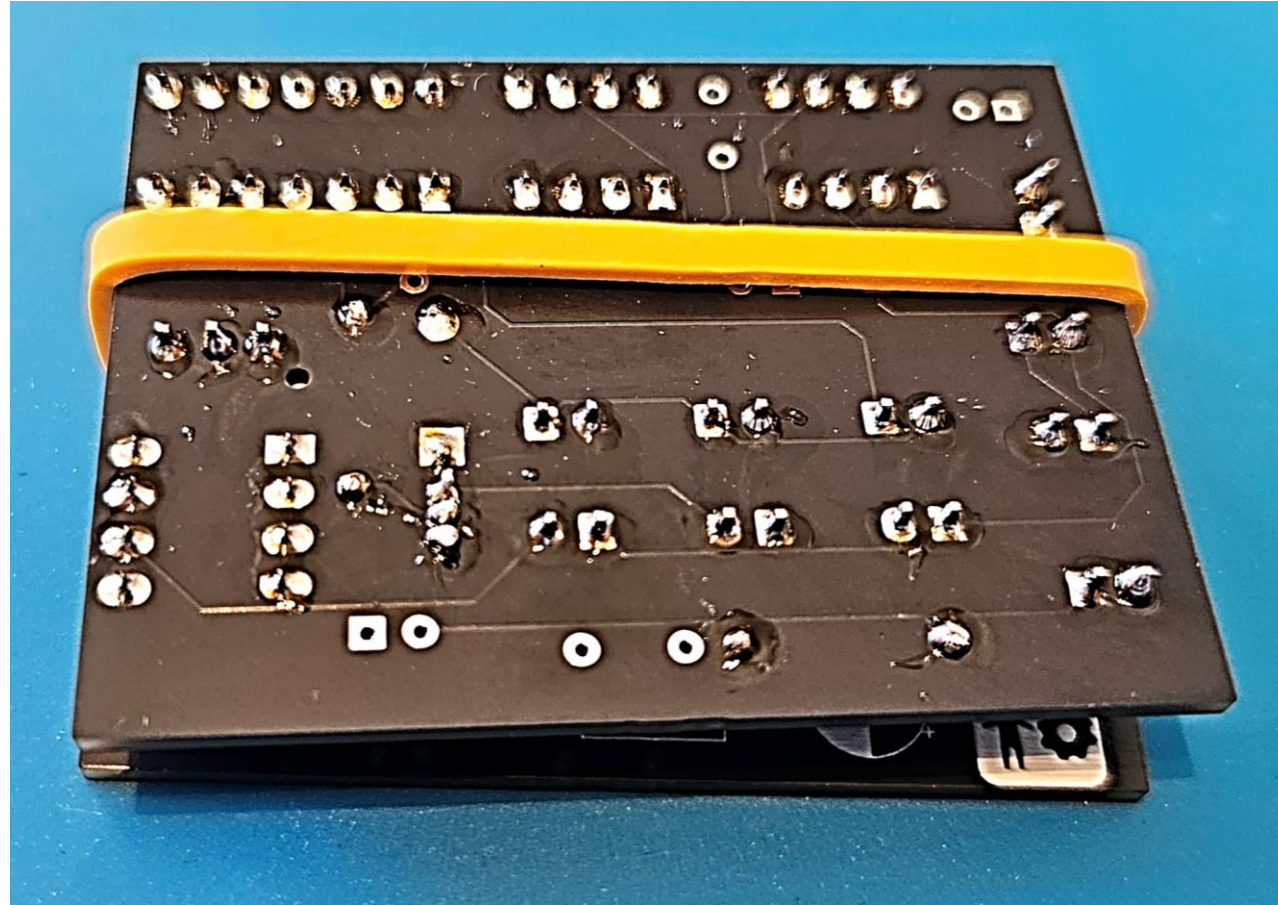
5. Install the JST connectors

Place them according to the silkscreen



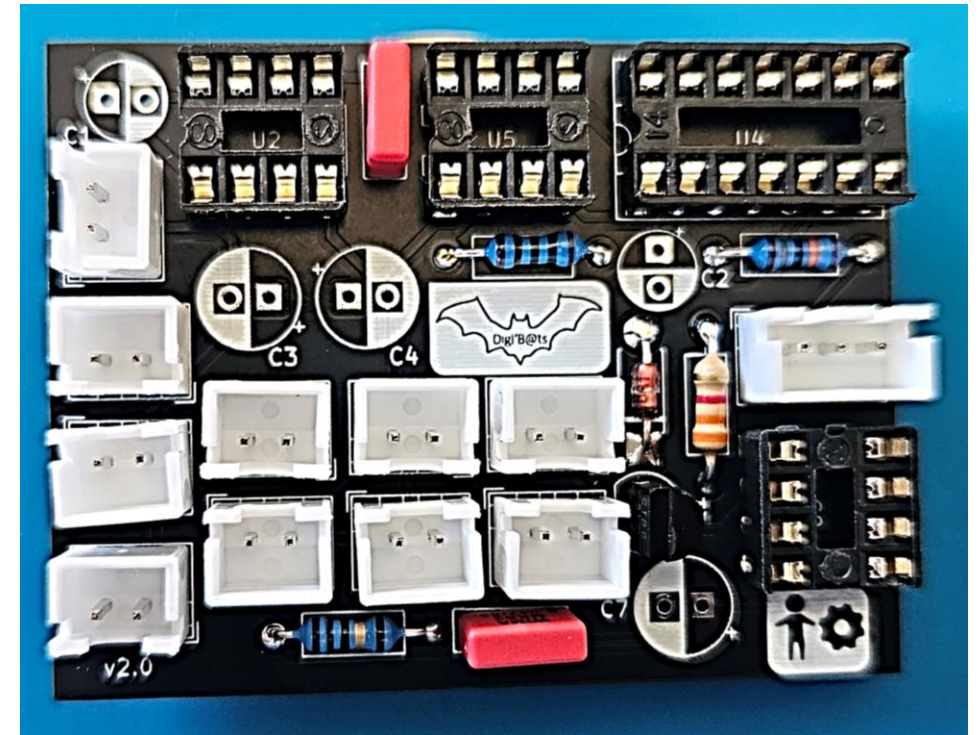
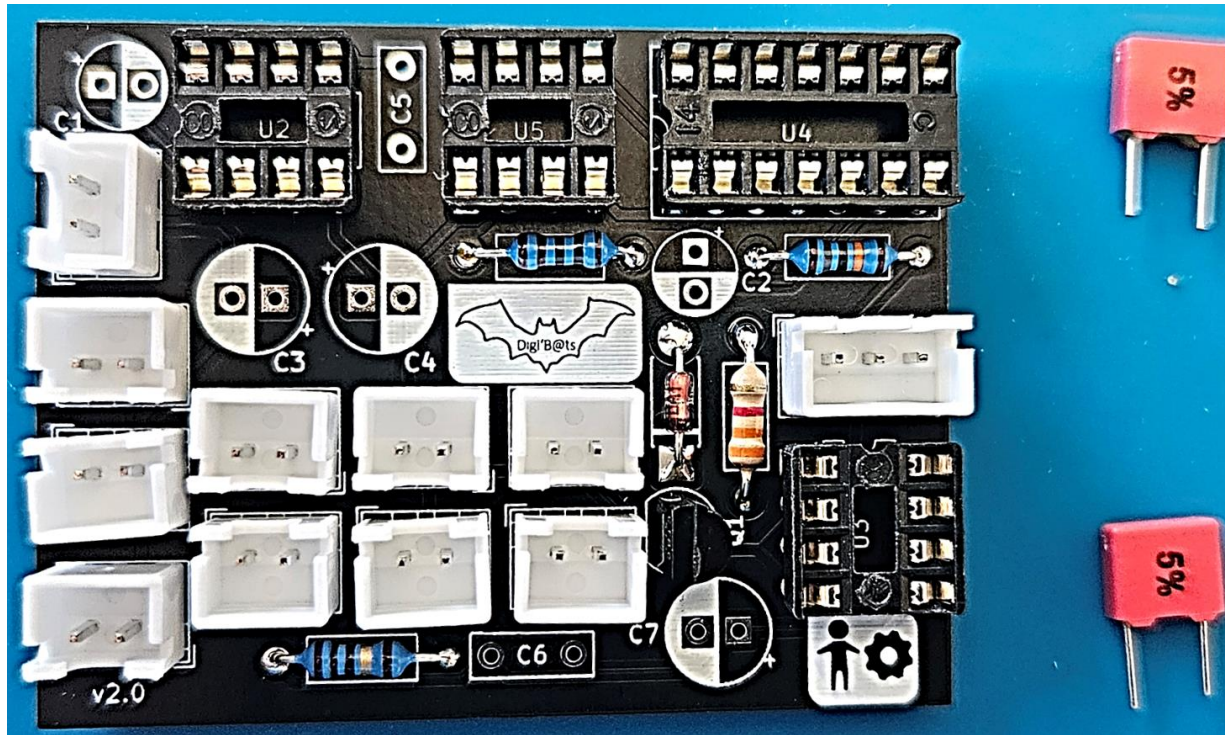
5. Install the JST connectors

Fix them
before
flipping the
board for
soldering.



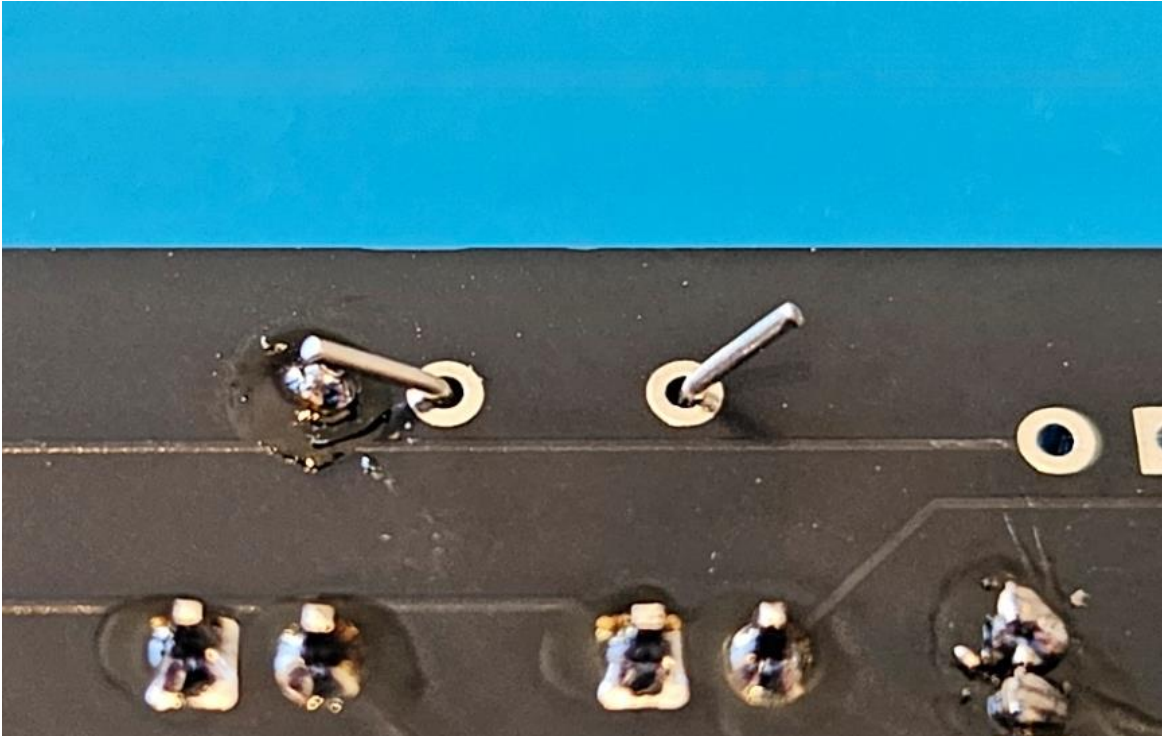
6. Install the film capacitors

Place them according to the silkscreen.



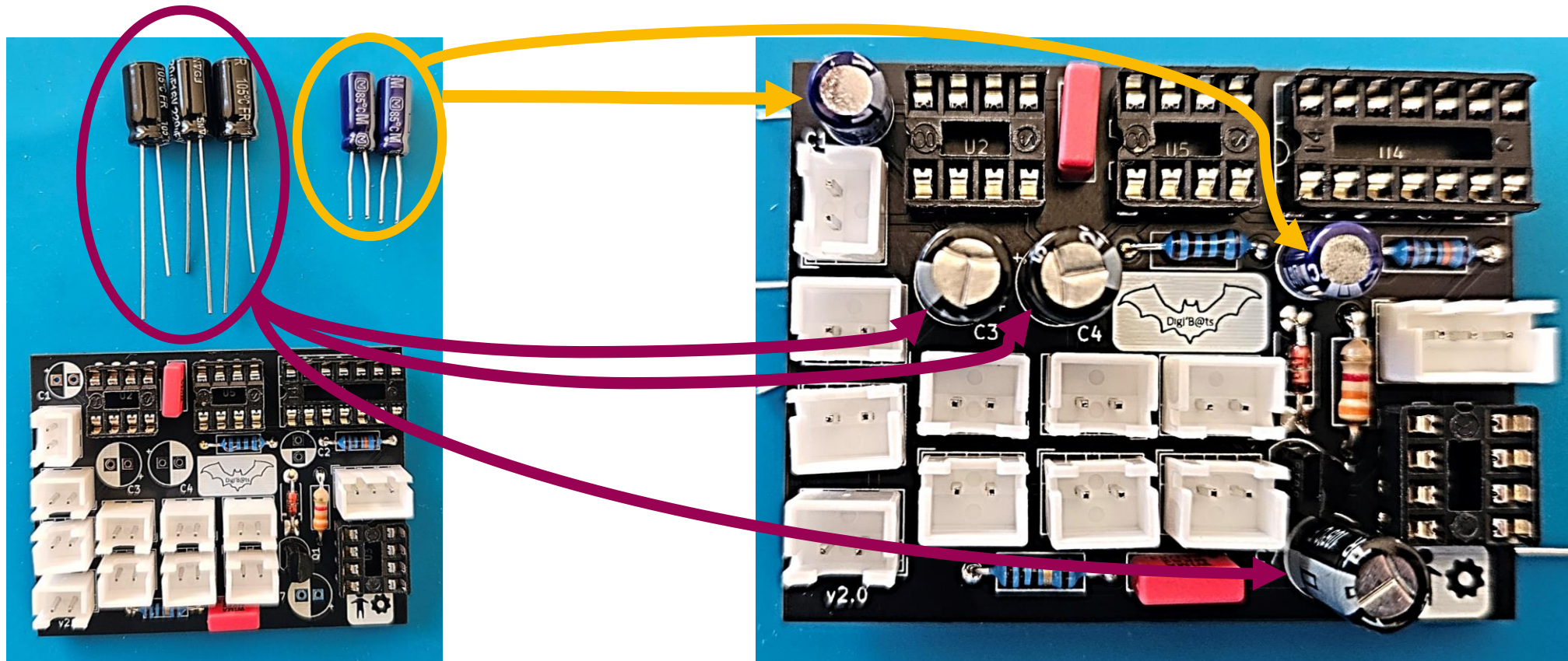
6. Install the film capacitors

Bend the wires outside, solder and cut them.



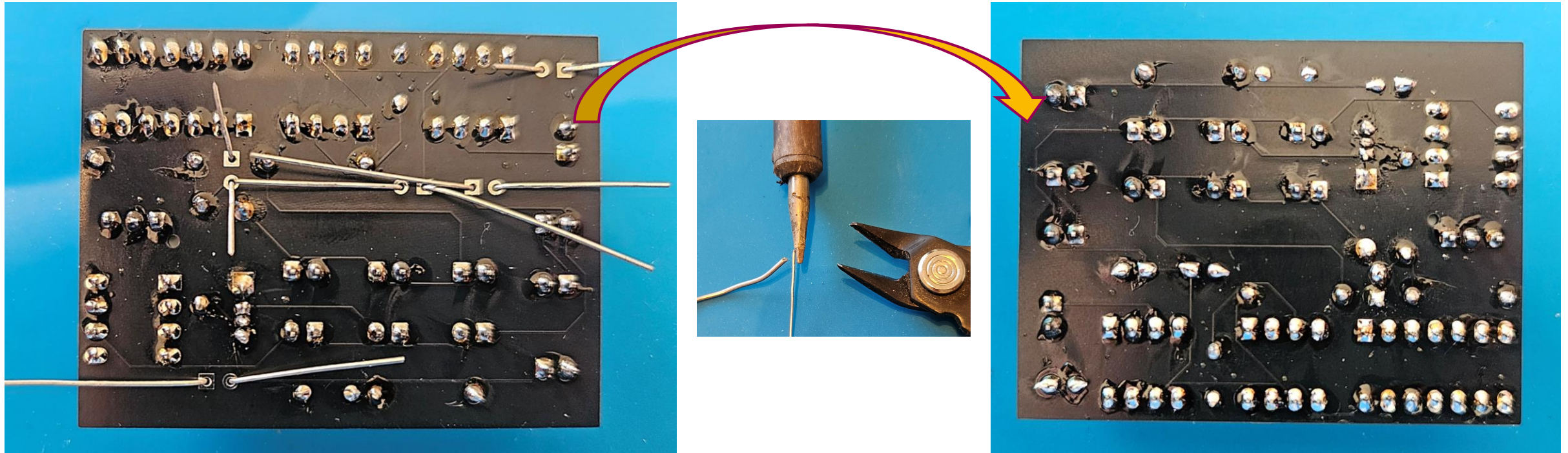
7. Install the film electrolytic capacitors

Take care of the polarization!
Refer to the footprint of the silkscreen ☺



7. Install the film electrolytic capacitors

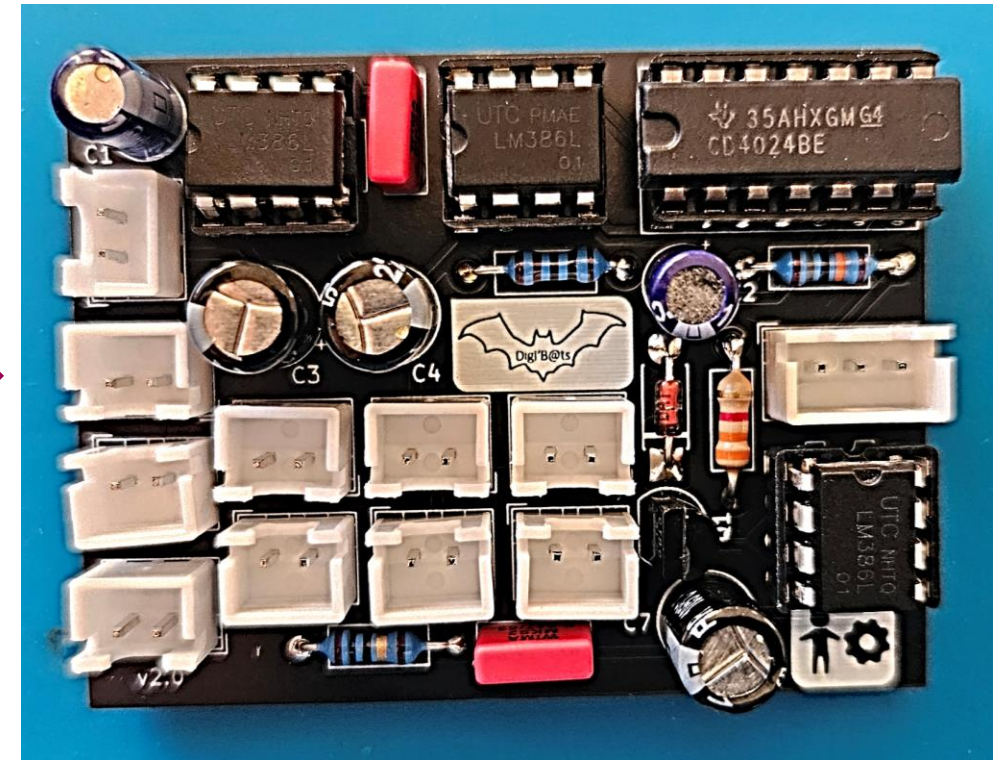
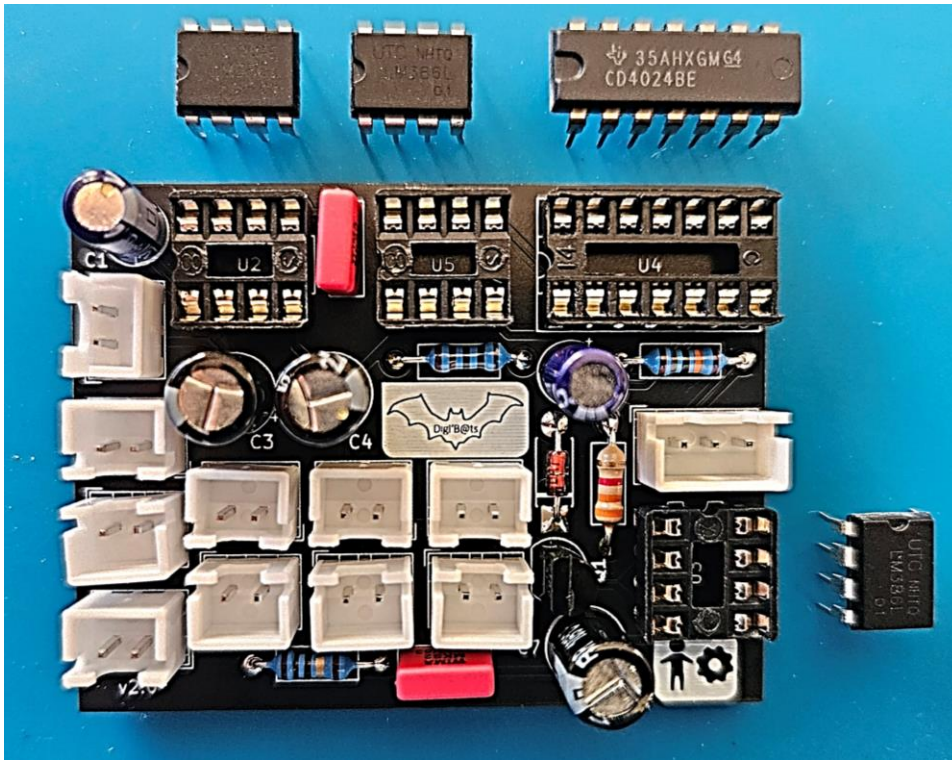
Bend, solder and cut the wires on the backside.



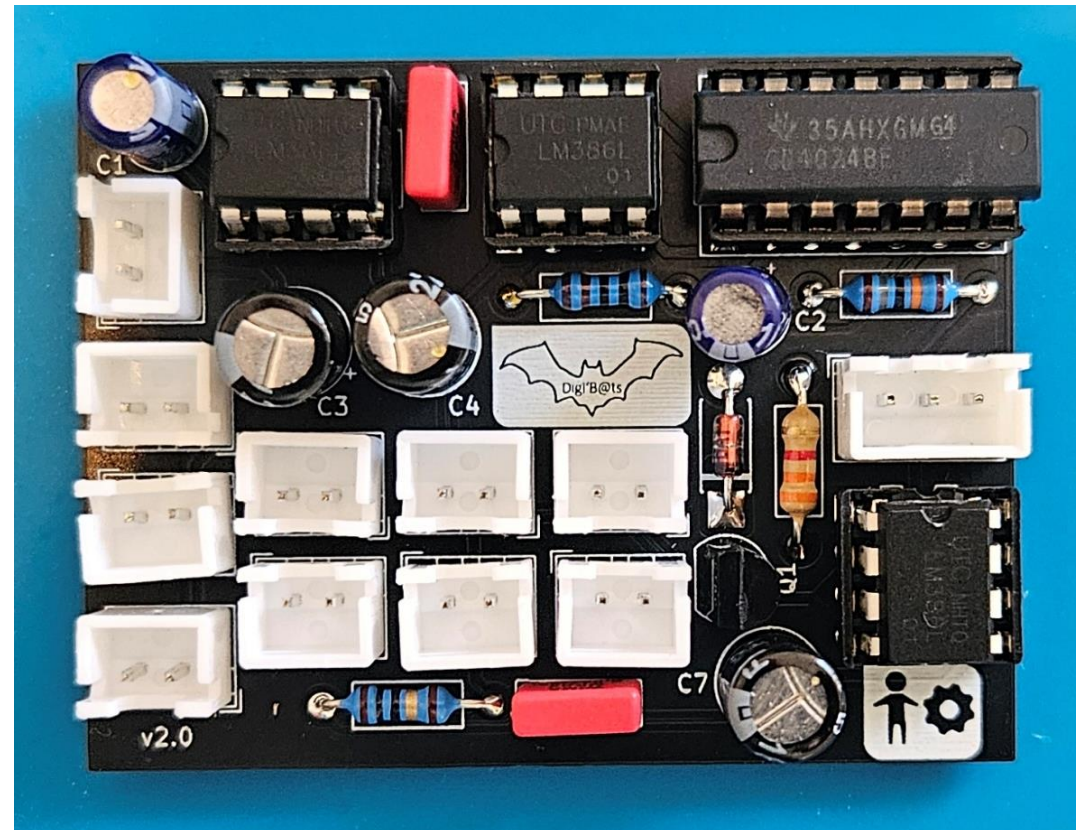
This was last soldiering on the circuitboard 😊

8. Install the film electrolytic capacitors

Push in the lcs.
Orient the notches in proper direction!



Congratulation!!!
You made it 😊



Thanks

Jochen Pfeifer

jochen.pfeifer@ph-gmuend.de

PH Schwäbisch Gmünd
Abteilung Technik
Oberbettringer Straße 200
B-Bau / Raum B005
73525 Schwäbisch Gmünd