Audio Tone Control

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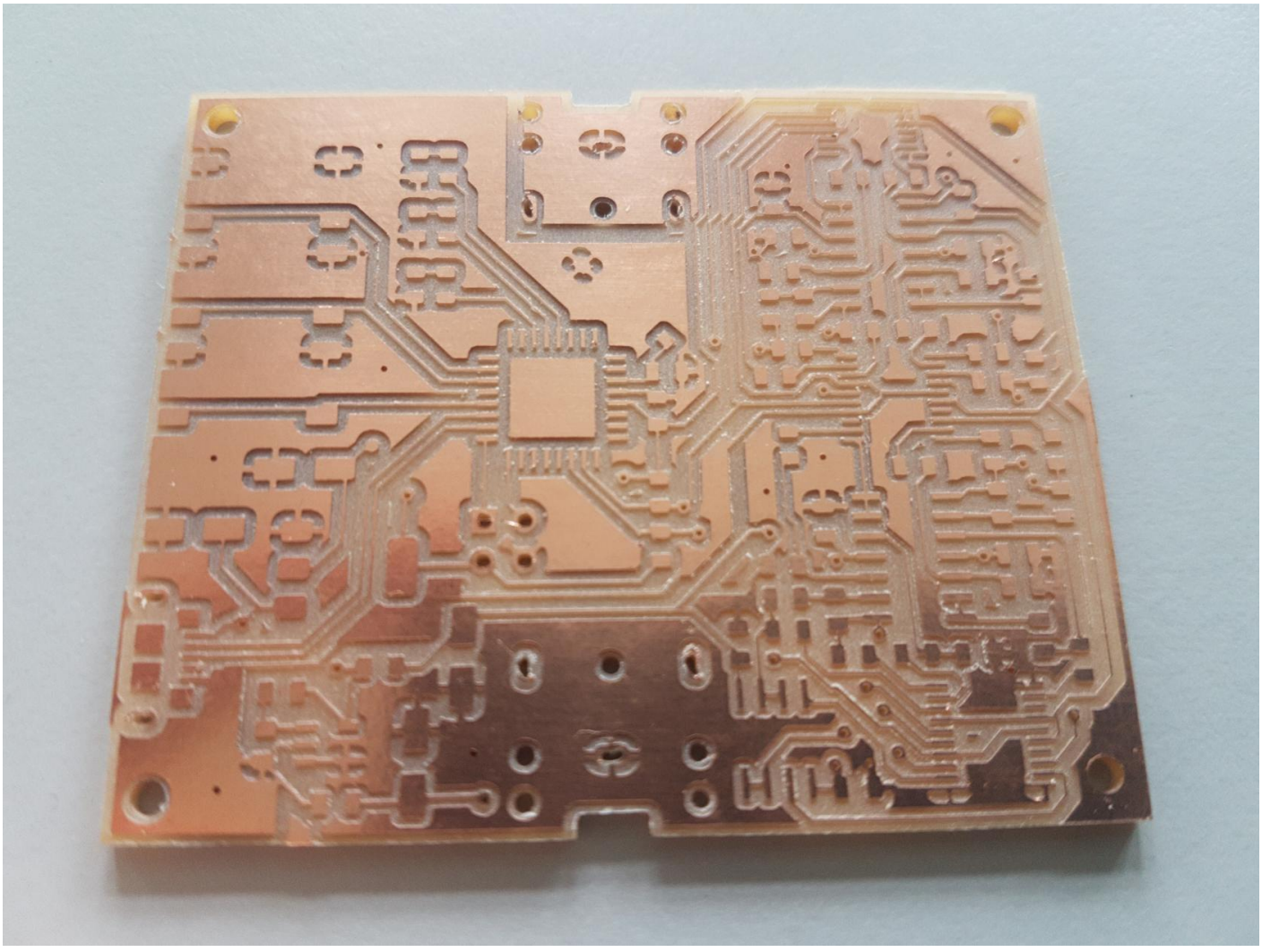
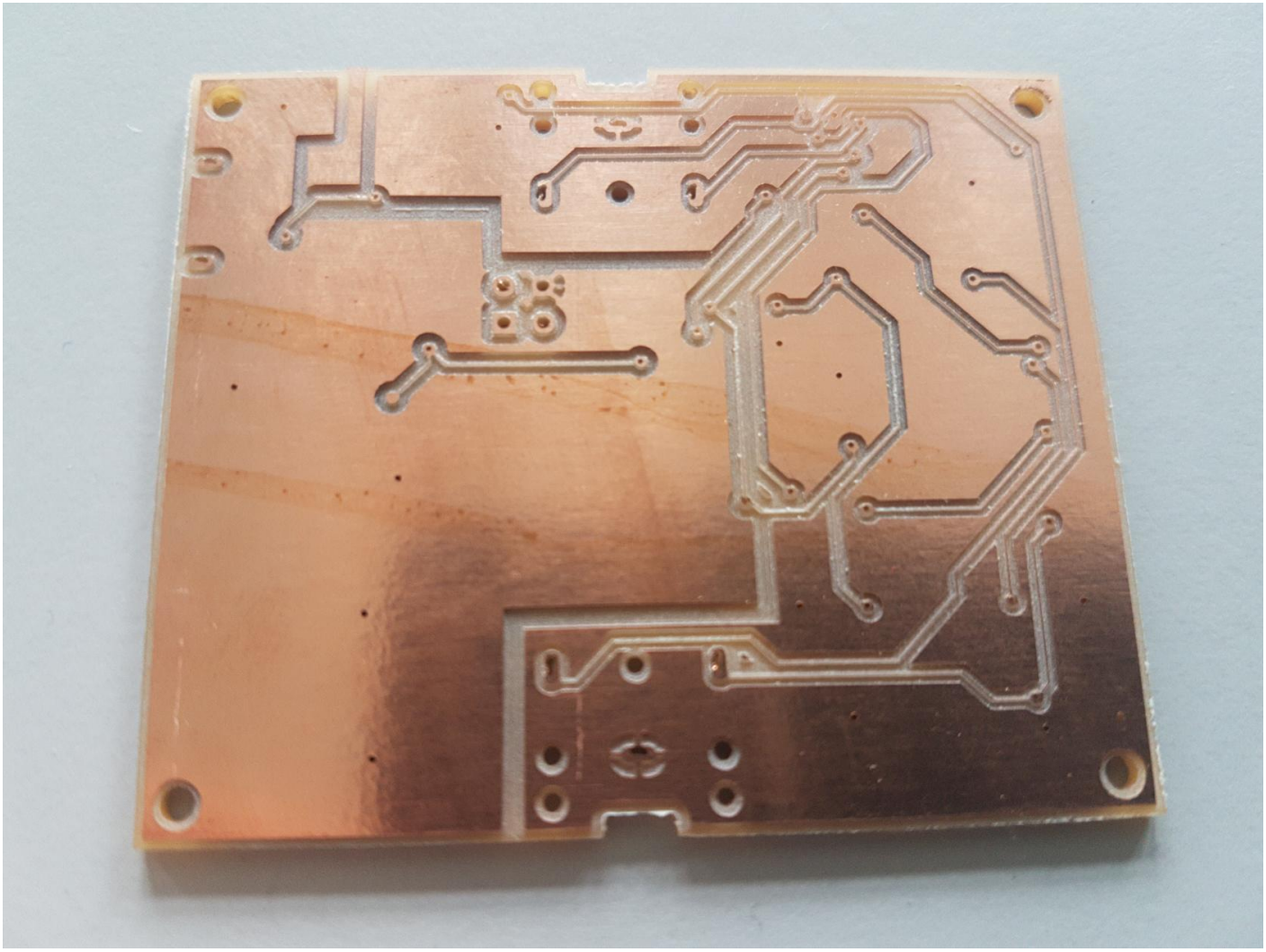
GaSt Praxisseminar WS 25/26



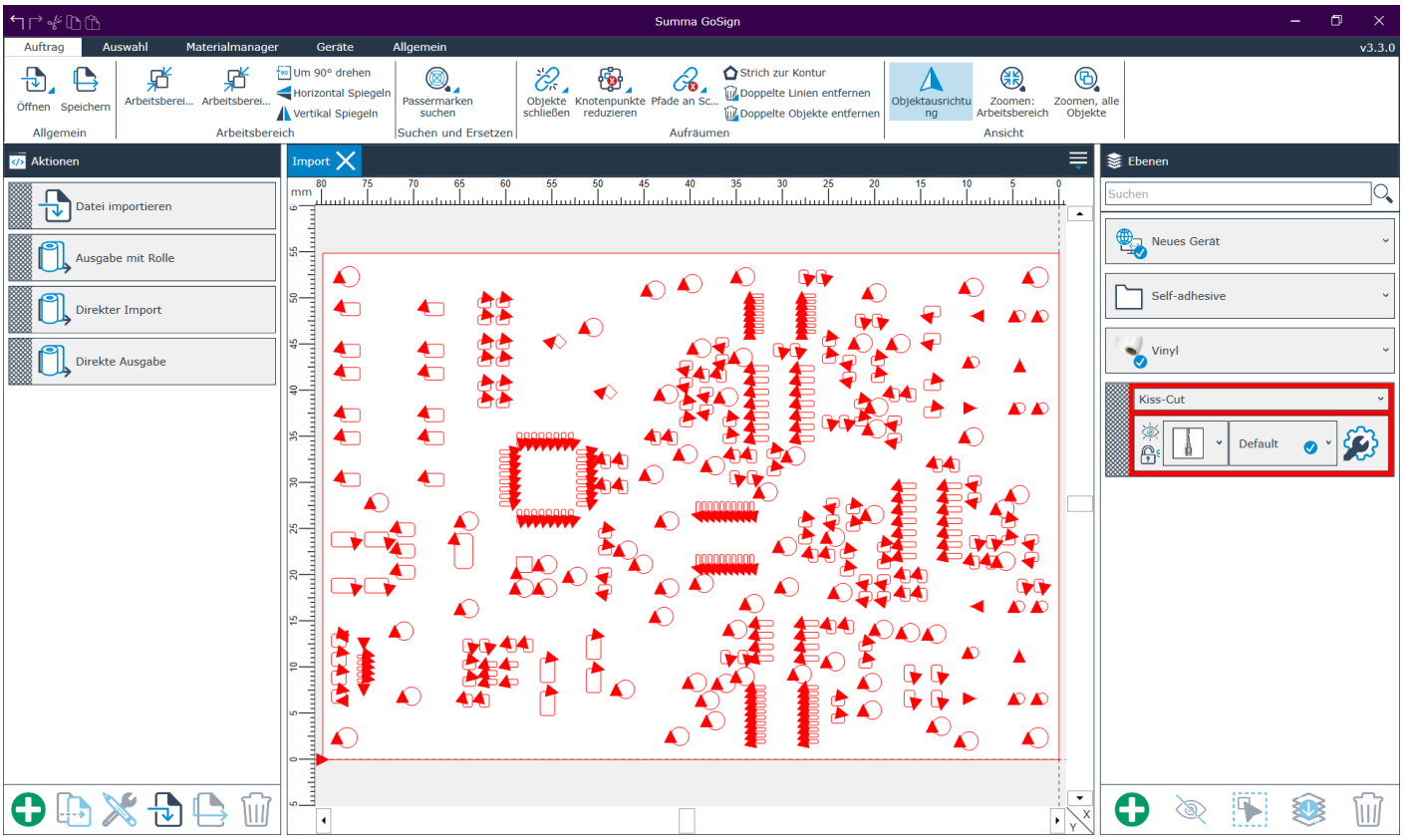
Probably our most complex double sided PCB so far.

Size ~60x50mm

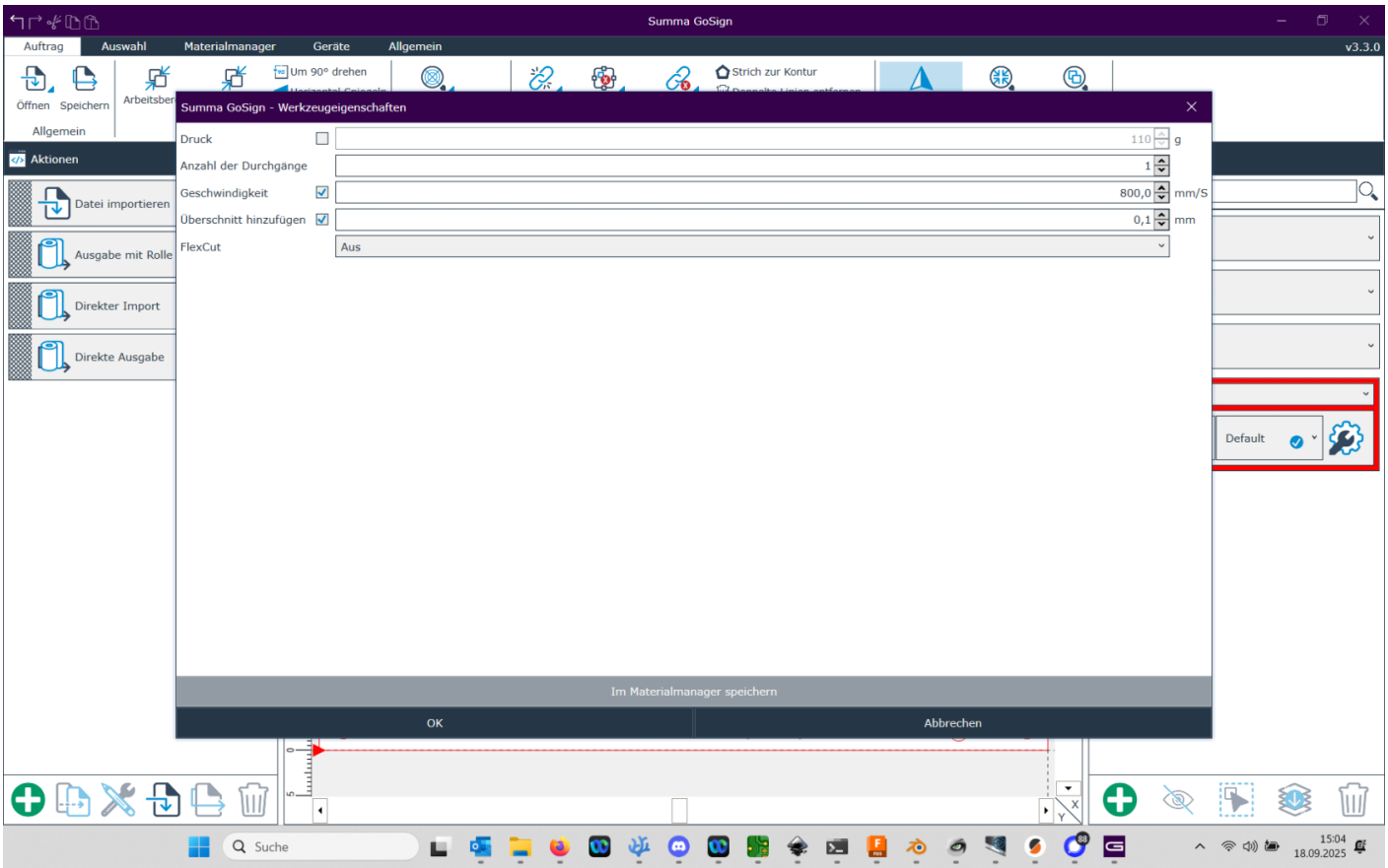


We are working on soldering this board with our Reflow-oven.

We want to try making the solder-paste stencil with our vinyl-cutter:

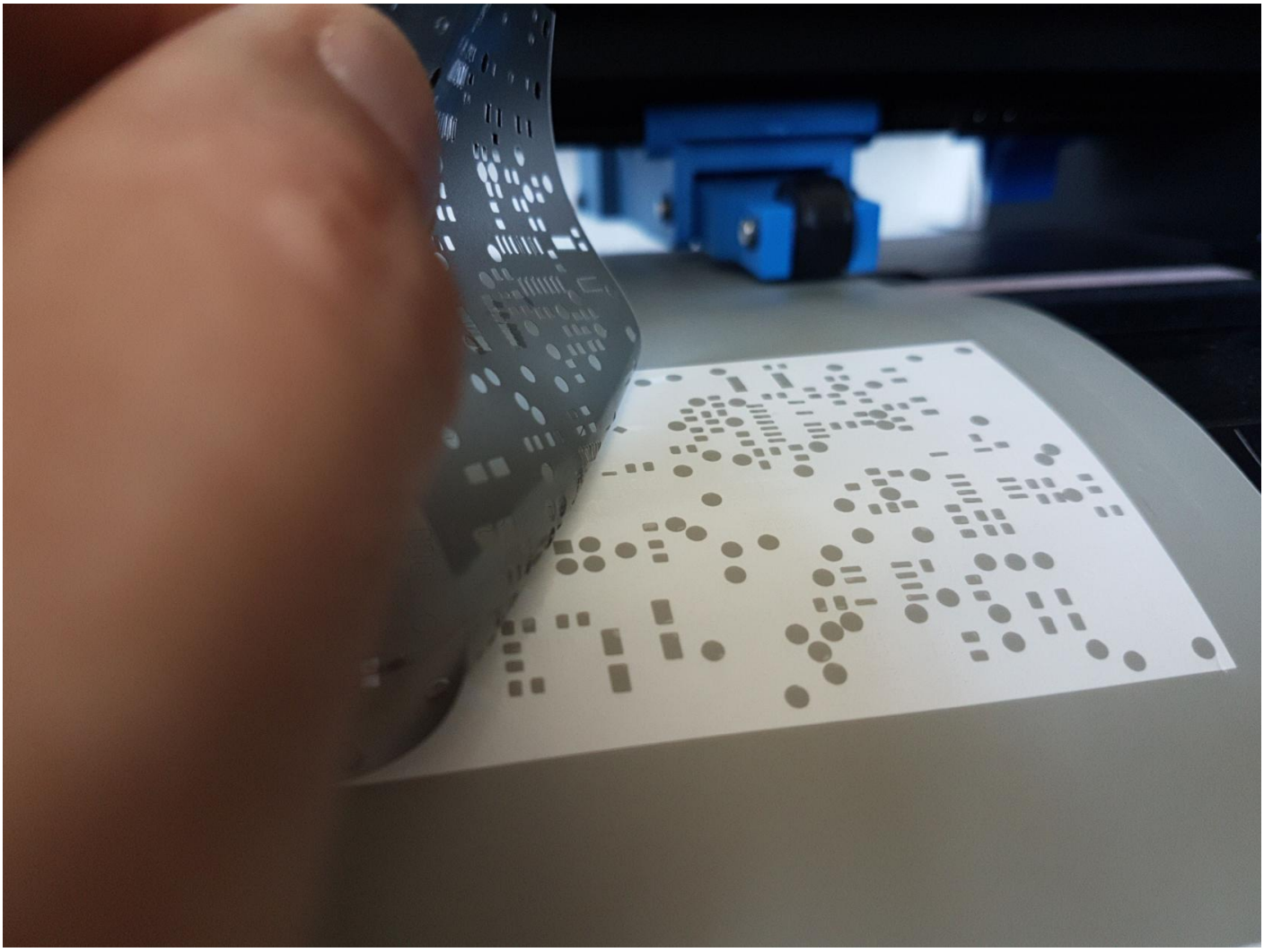


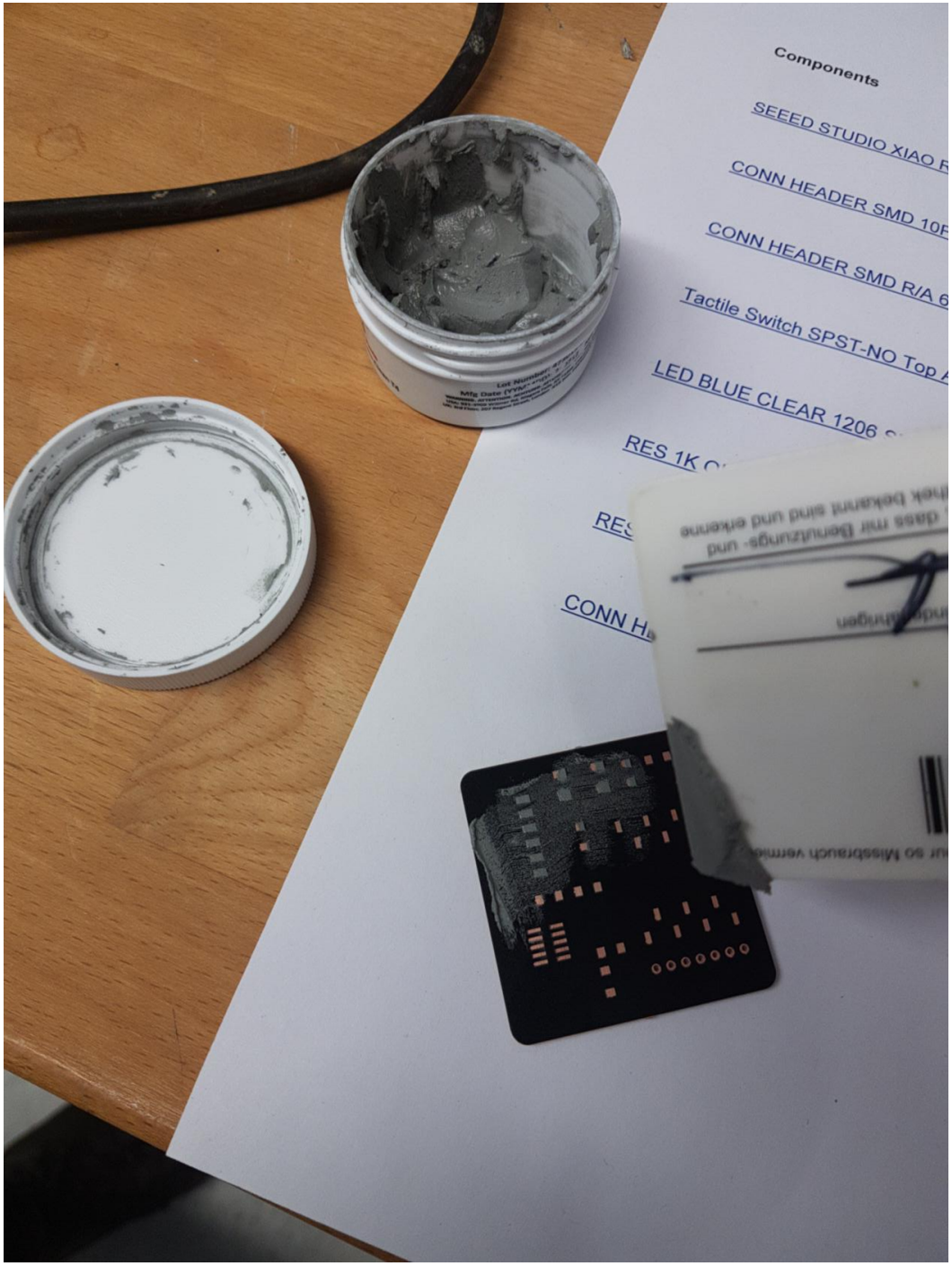
Above is a screenshot from GoSign, our software for the Summa S3 T75.

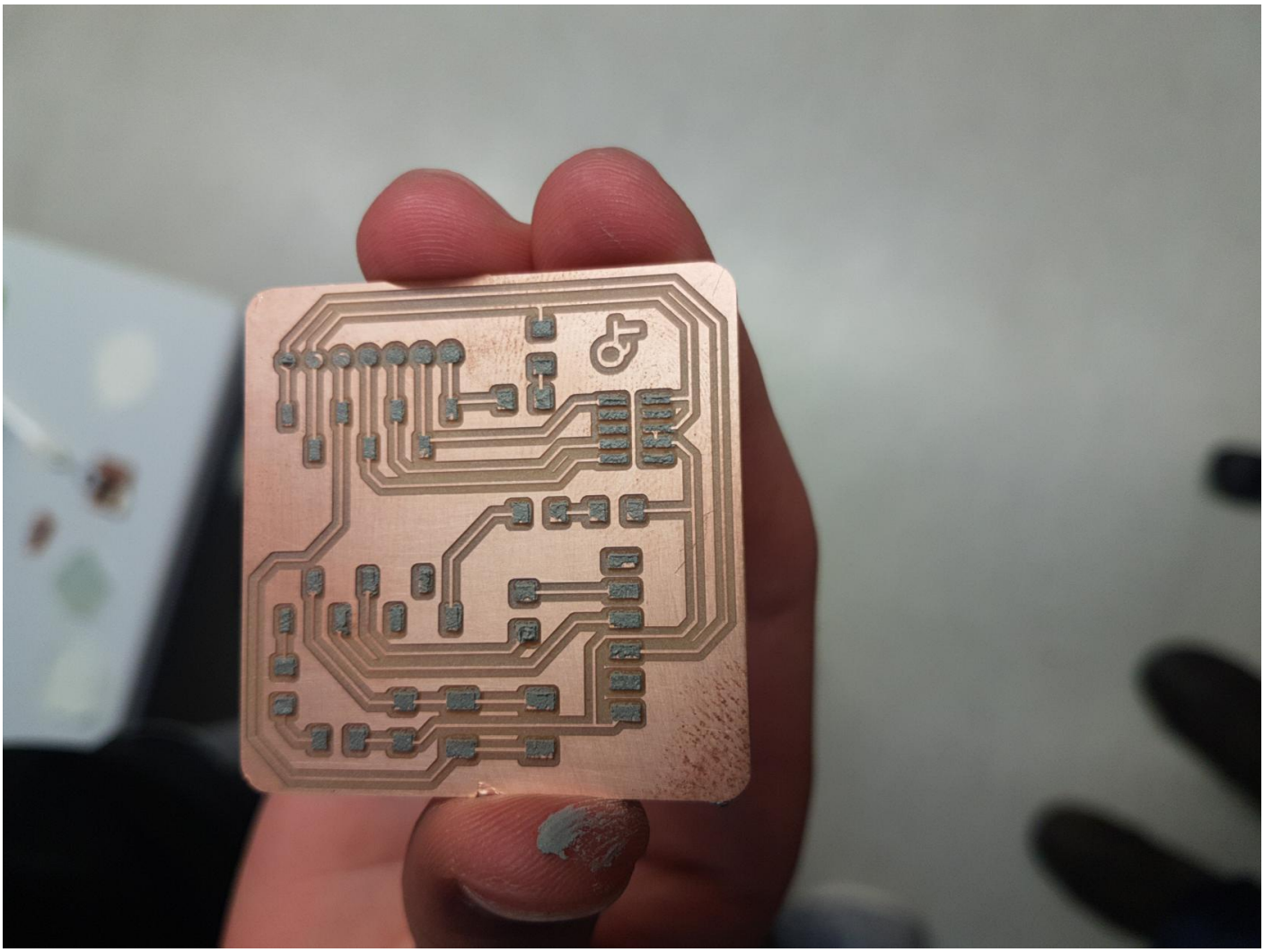


This is an attempt with a speed of 10mm/s instead of 800mm/s:

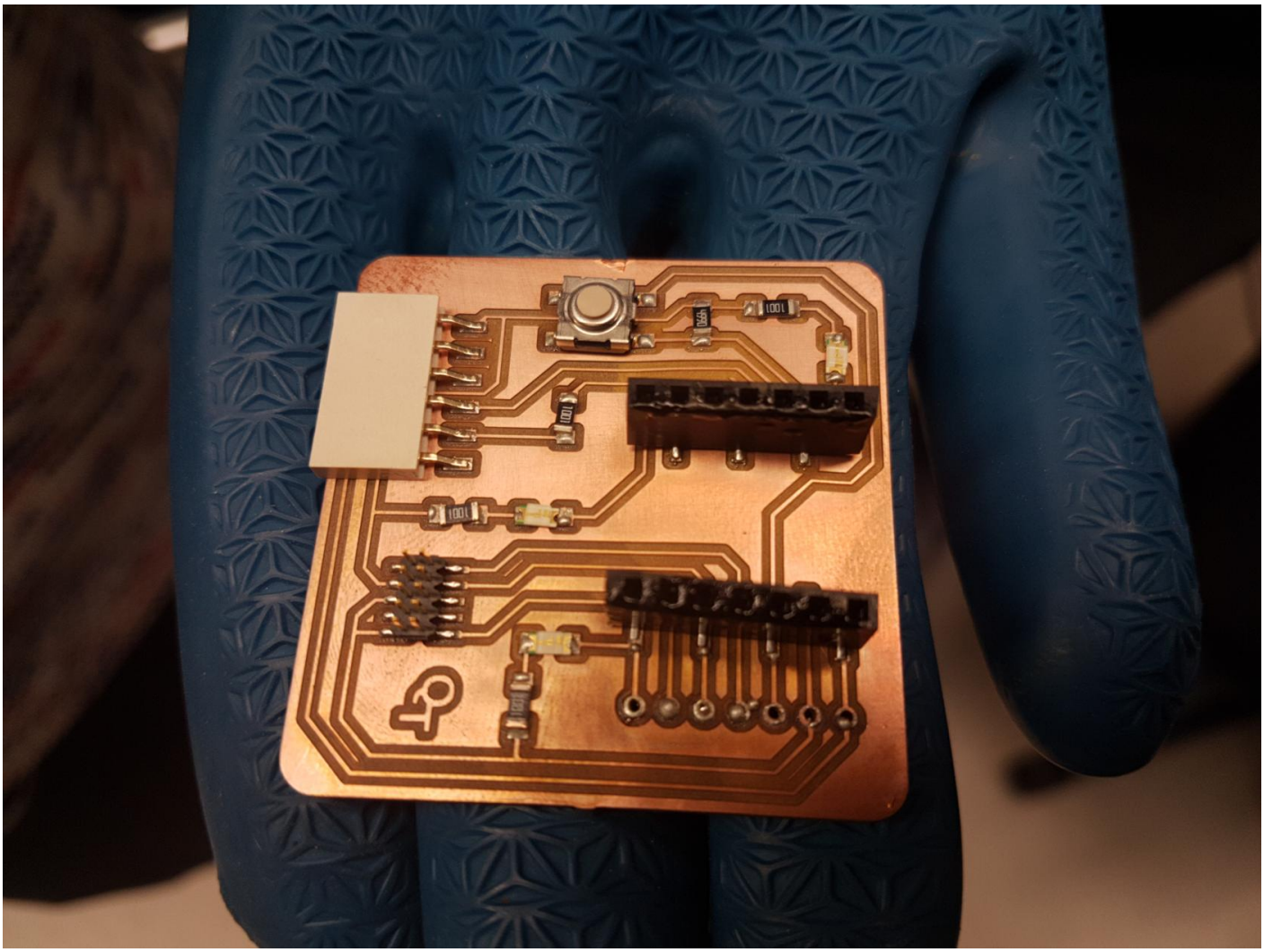
The first stencil looks very promising!

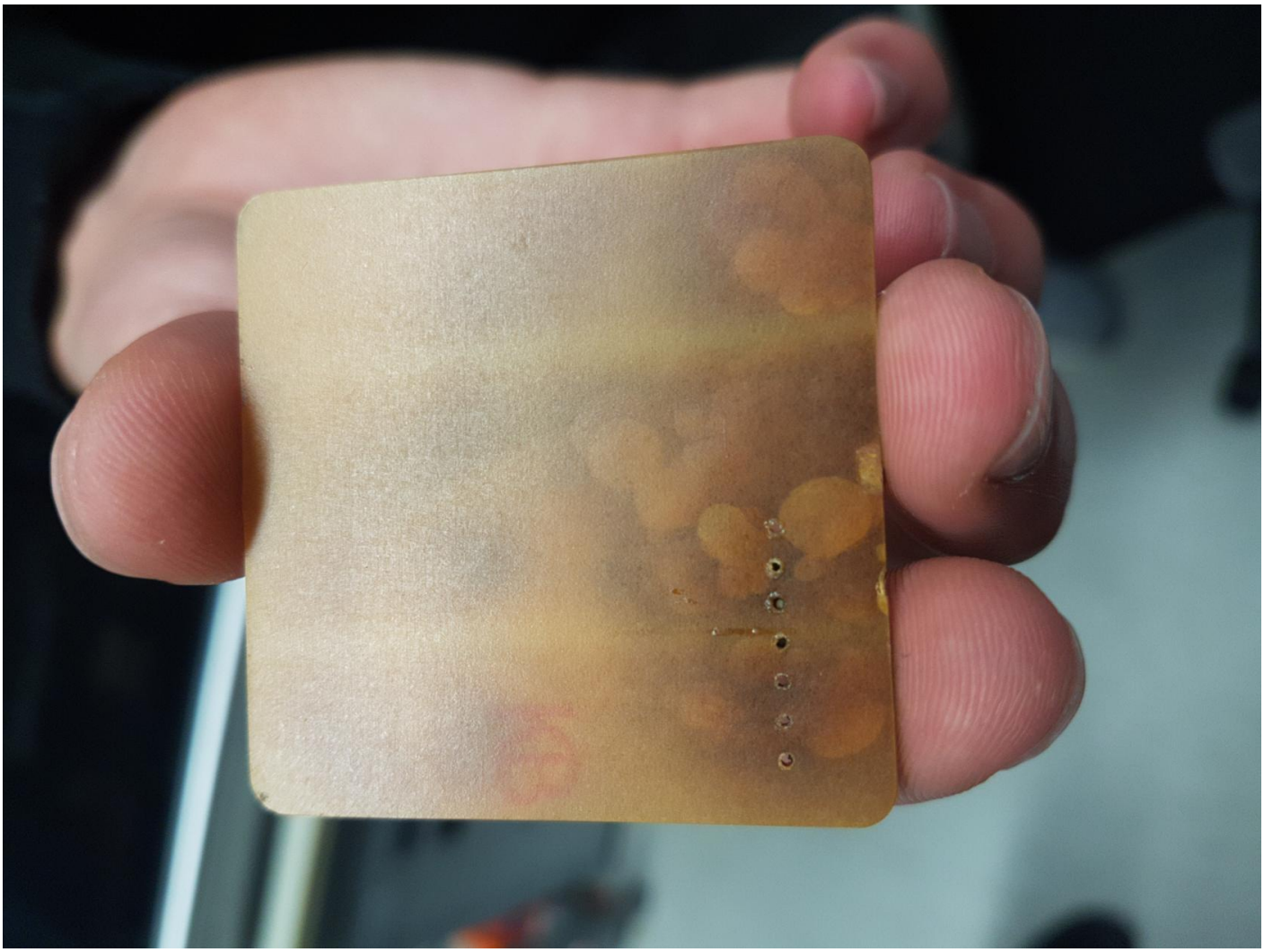



Components
SEEED STUDIO XIAO
CONN HEADER SMD 10
CONN HEADER SMD R/A 6
Tactile Switch SPST-NO Top
LED BLUE CLEAR 1206
RES 1K



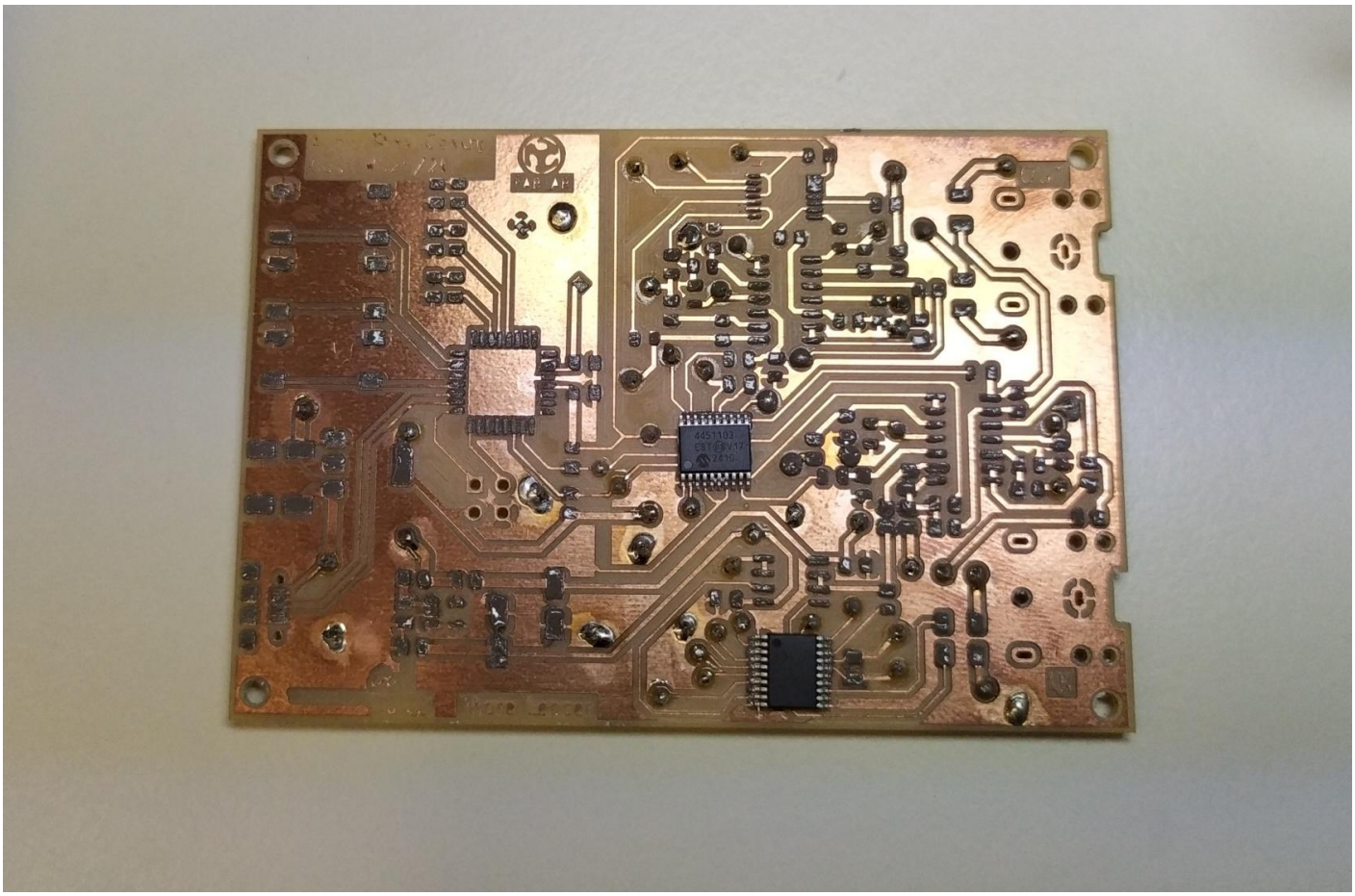

ProtoFlow
LPKF

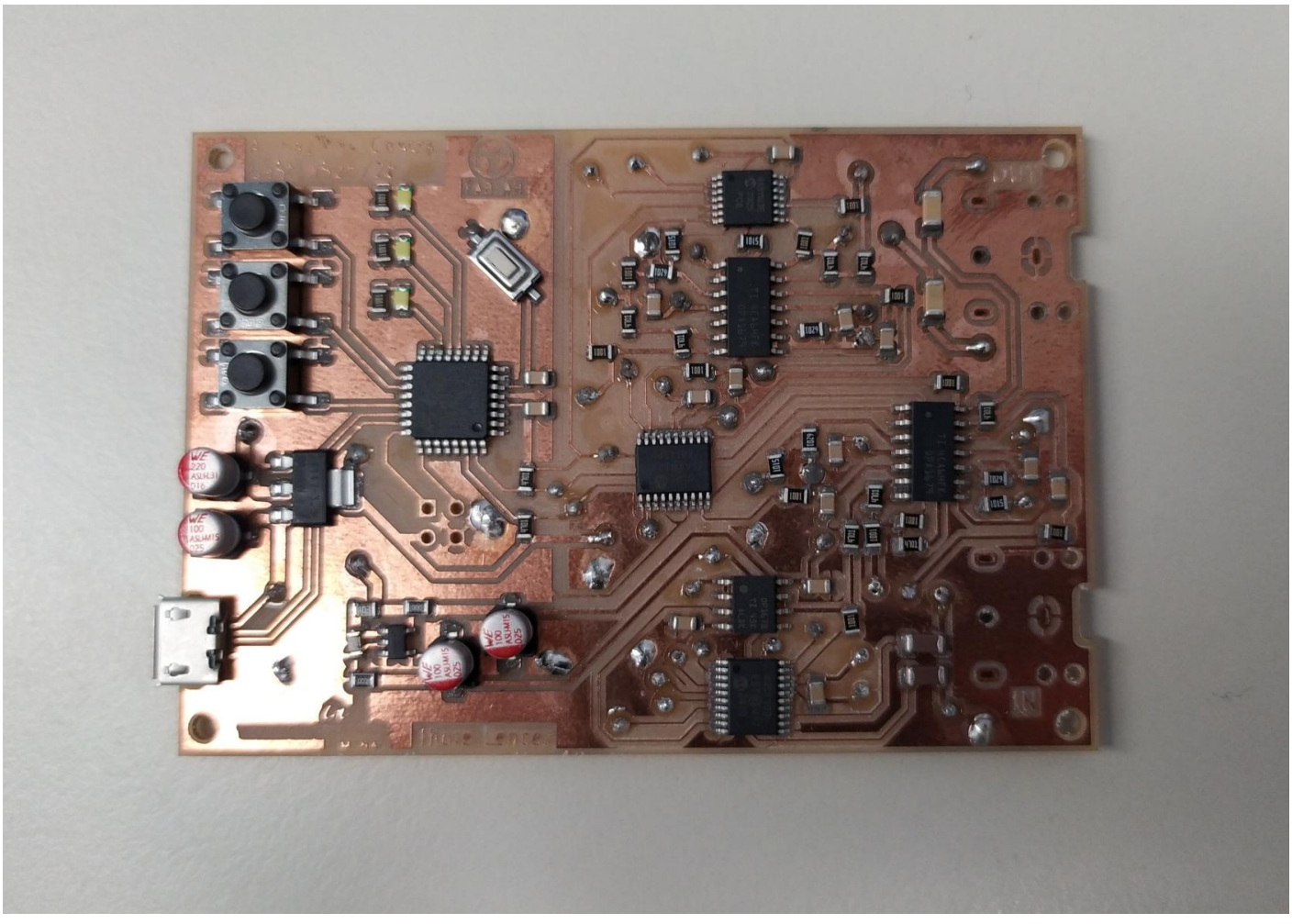




Reflow soldering

Placing all components:





Good settings for perfect TSSOP package and 0,4mm traces copper milling: 0.2mm v bit but insert 0.25mm in modsproject with 0.25 stepover and 4 offsets

Solder mask removal: Solder mask removal bit; Z calibration with multimeter; then step up by 0,12mm and step down slowly if needed; cure UV mask for 5min first, then mill, then final-cure; cut speed 5mm/s; plunge speed 2mm/s, spindle 6000rpm

Drill after solder mask application! Elsewise solder mask gets into the holes and copper can be destroyed when there are thin pad rings

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