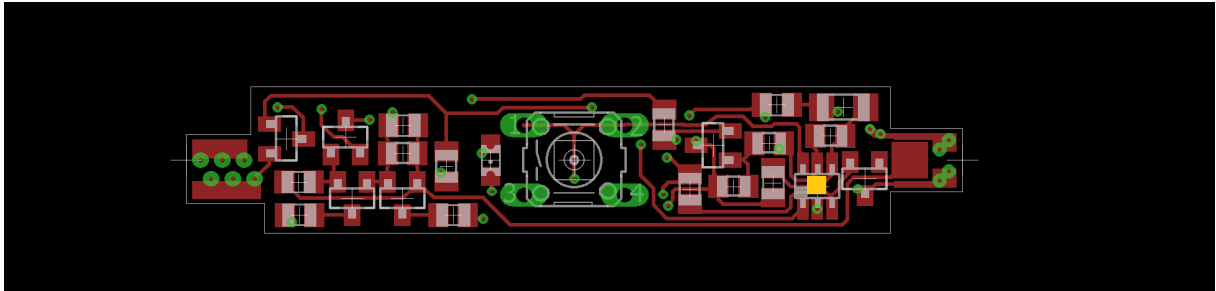


Step 1: solder SMD parts on PCB

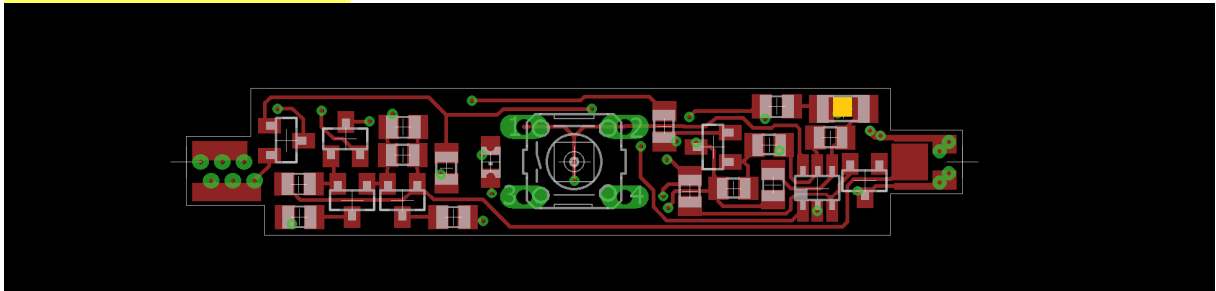
All the SMD parts can be soldered on your PCB's as explained in the following pictures. Parts with a polarity should have a dot on the PCB silk screen and on the PCB. Pay extra attention when soldering the LED and microcontroller, since those fit in multiple ways. In the pictures, red is the top layer and blue is the bottom layer.

For the parts that look the same:

- There is only one voltage reference (TL431), two small MOSFETS (BVSS123), and more diodes (BAT54S).
- There is only one 1nF capacitor, and multiple 100nF capacitors.



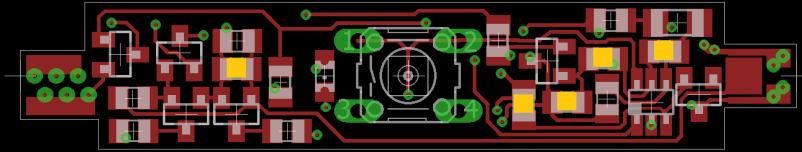
ATINY10_top



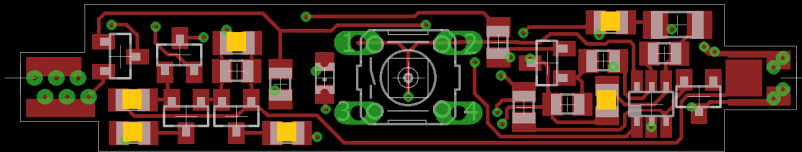
NB20M00333KBA_top



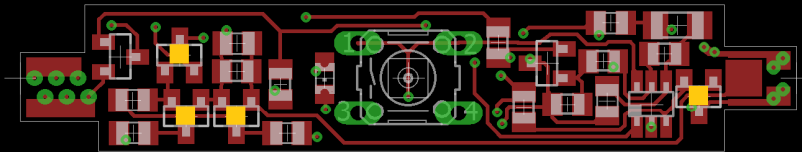
TL431BMFDT_top



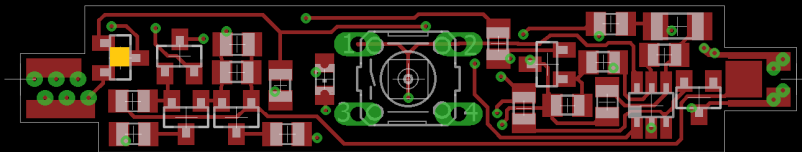
33k_top



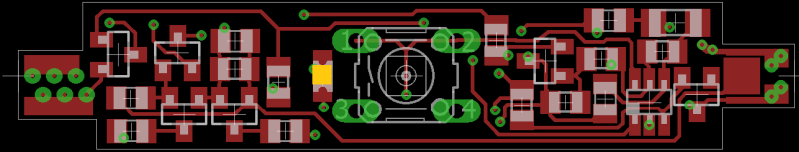
100n_top



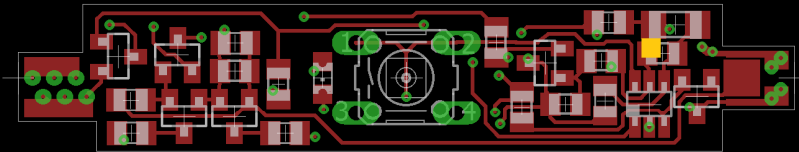
BAT54S_top



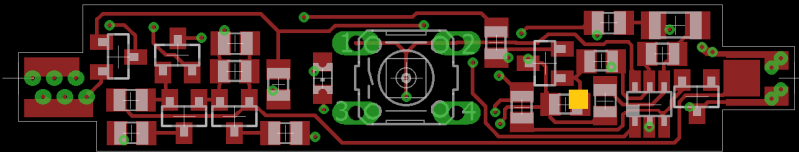
BVSS123LT1G_top



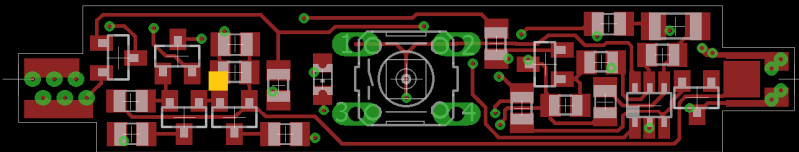
LED0805_top



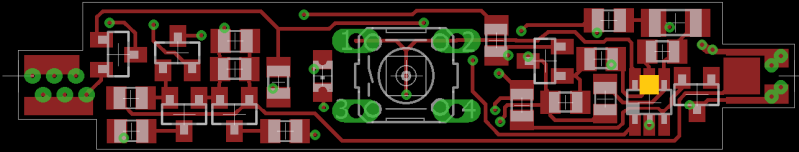
47_top



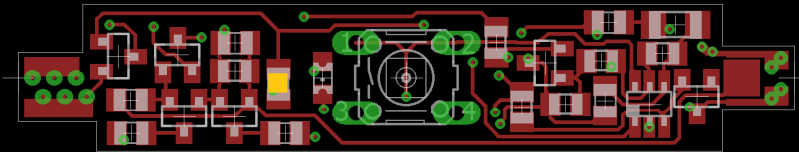
1n_top



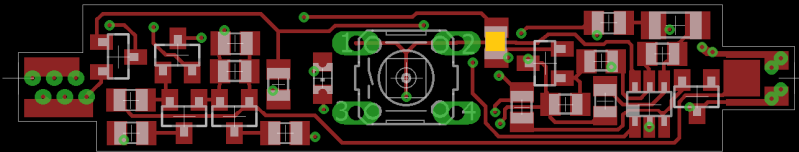
DMG4435SSS_top



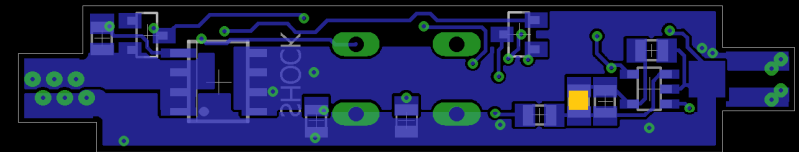
MCP6V71_top



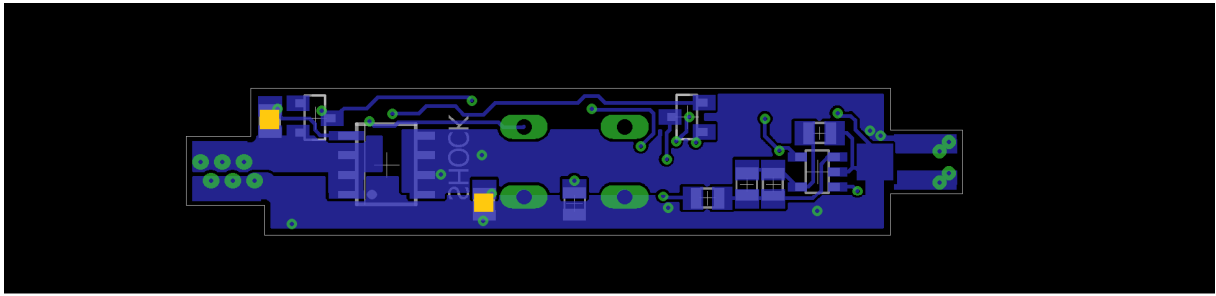
1k_top



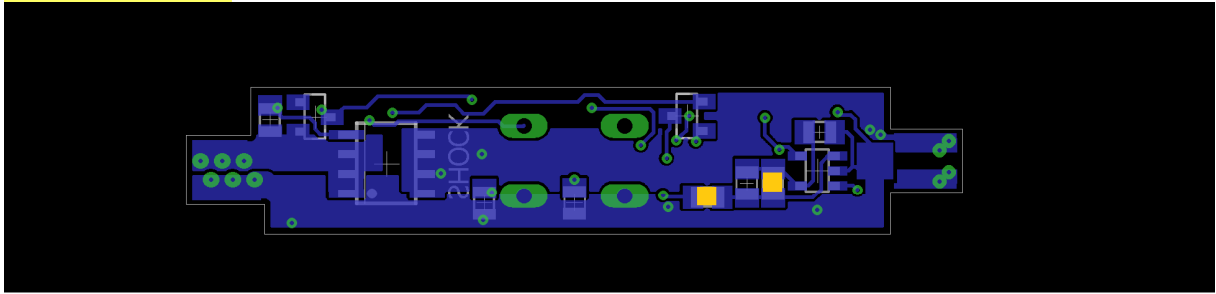
4k7_top



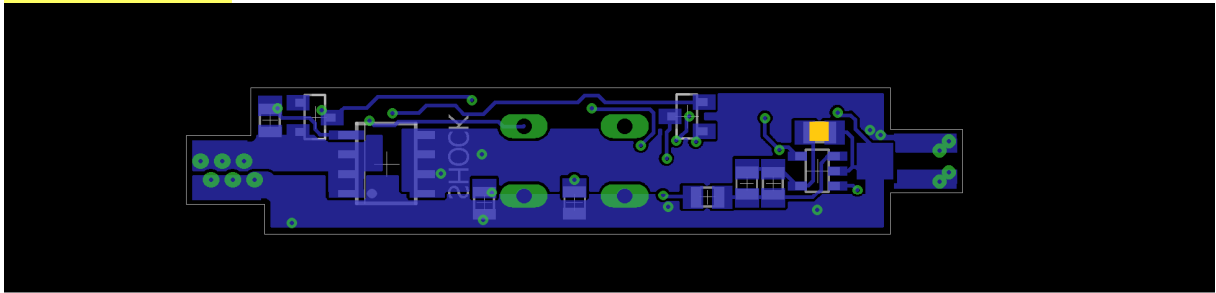
1n_bot



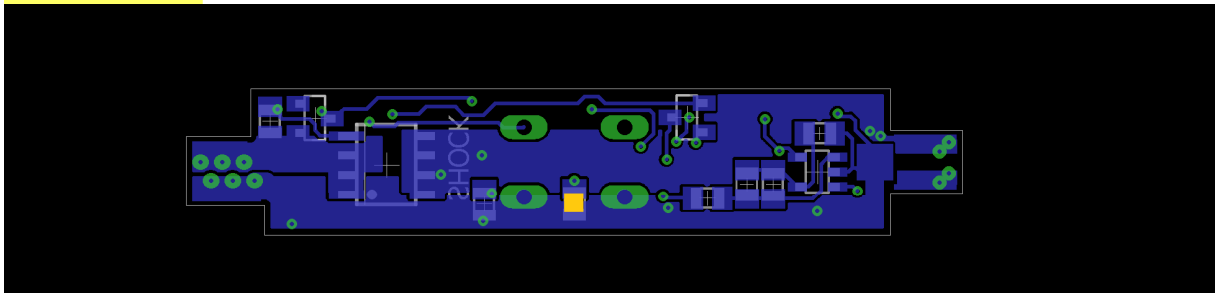
4k7_bot



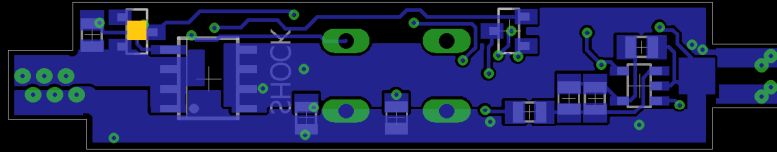
33k_bot



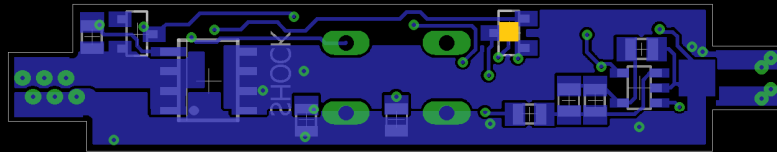
47_bot



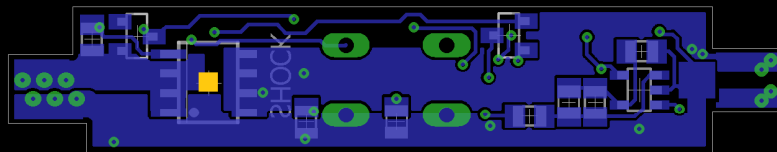
100n_bot



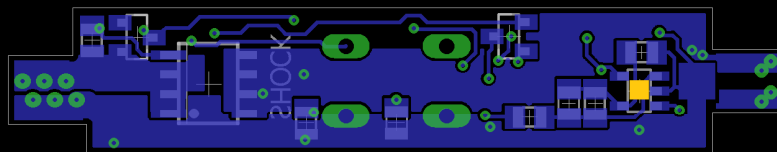
BAT54S_bot



BVSS123LT1G_bot



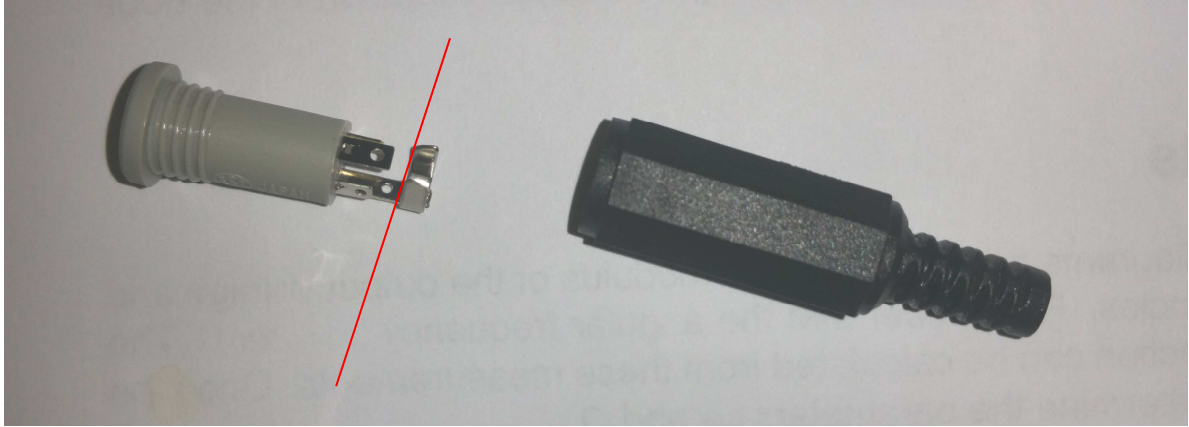
DMG4435SSS_bot



MCP6V71_bot

Step 2: solder the connectors to the PCB

Before the connectors can be soldered, the 3.5mm jack (4 pin, grey) connector should be cropped as in the following picture. Pay attention to the correct orientation; the longer leg and the longer (power jack) or furthest away (3.5mm jack) island on the PCB should correspond.



Programming and packaging instructions will follow later, ask for testing first.