No Drums
Unofficial Build Manual

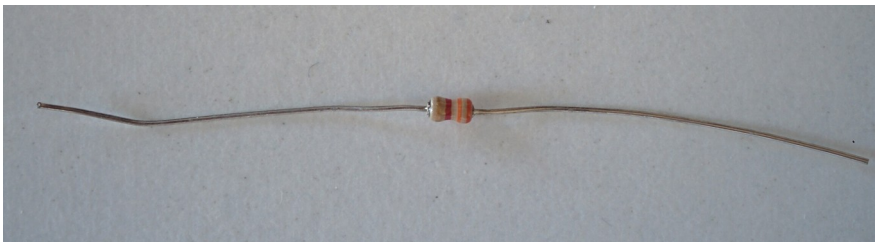
This is an unofficial build manual, written by me (a773.dk). It is provided as-is, in the hope it will help others put together the no drums kit. Although this describes how I (succesfully) put together my no drums kit, I do not take any responsibilities, if you wreck yours following these descriptions.

The kit is pretty simple, and has a very low part count. However there are quite a few “tricks” involved in putting it together and the documentation provided from gieskes is pretty basic. Hence this (much) more step-by-step manual.

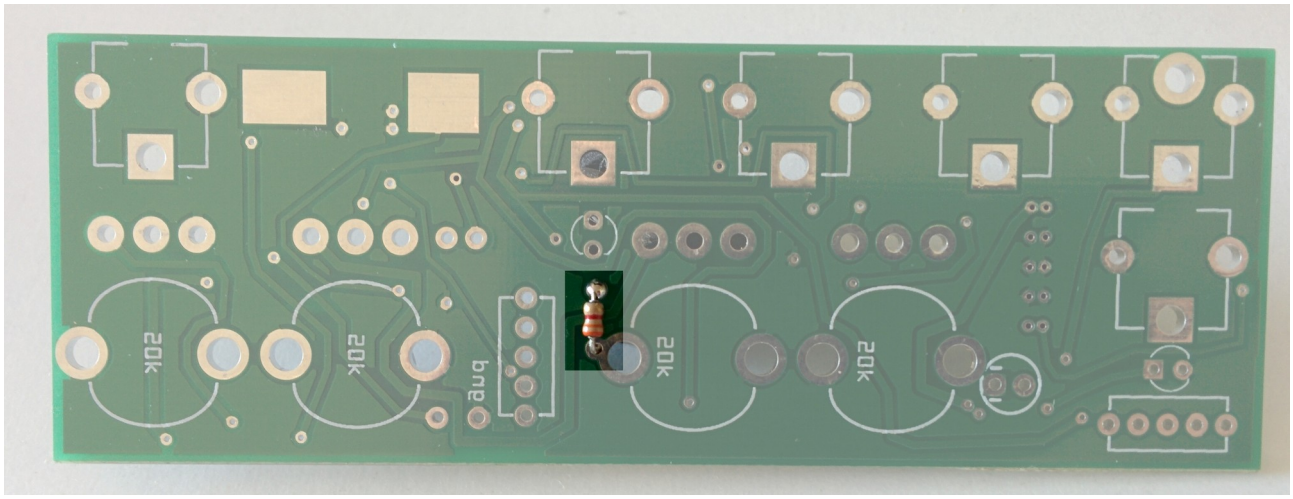
Enjoy your build!

Step 1 – resistor

Identify the 3.22K resistor (the only resistor in the kit)

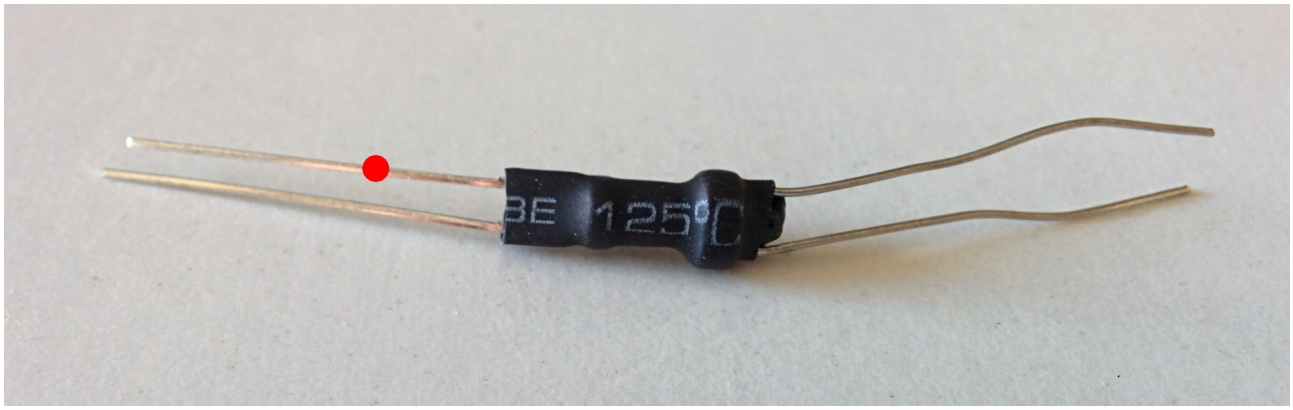


Place it on the PCB like this and solder

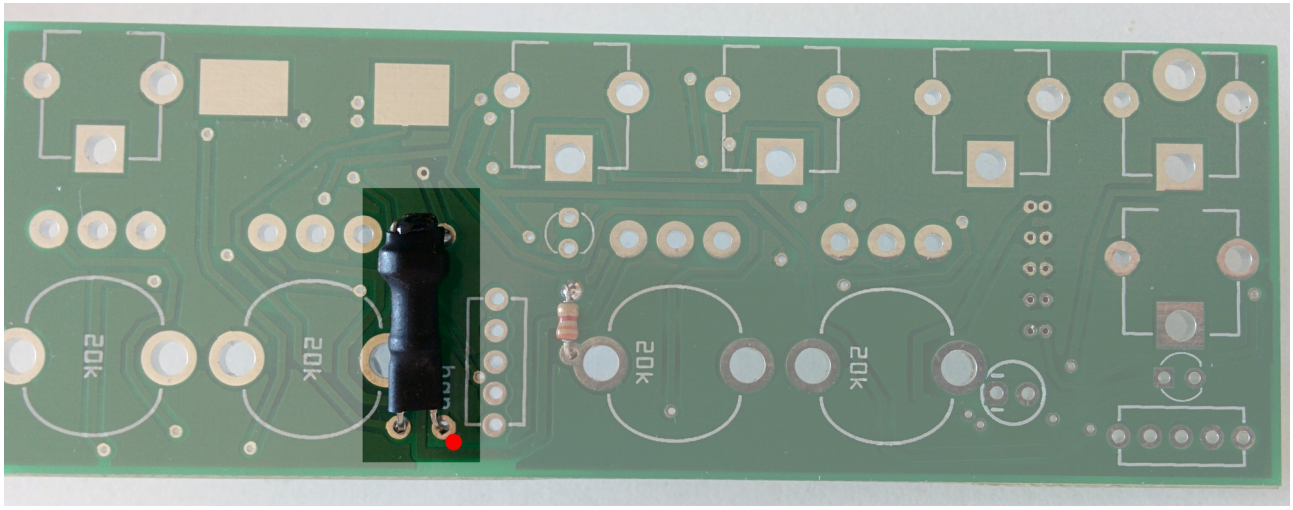


Step 2 – vactrol

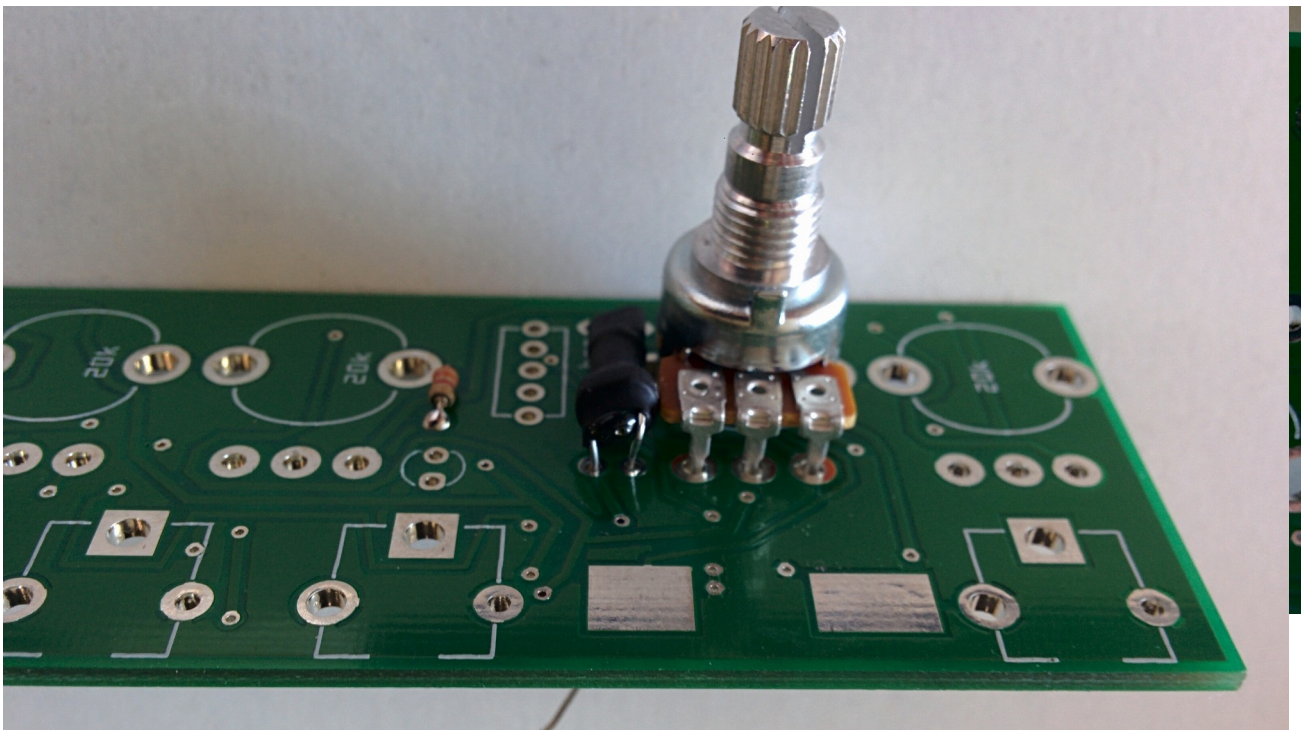
Identify the vactrol. It's the large black component with four legs sticking out. Note that there's a short leg (marked with a red dot in the picture). Orientation of the vactrol is important, so make sure you identify the short leg.



Place it on the PCB like this (don't solder yet)



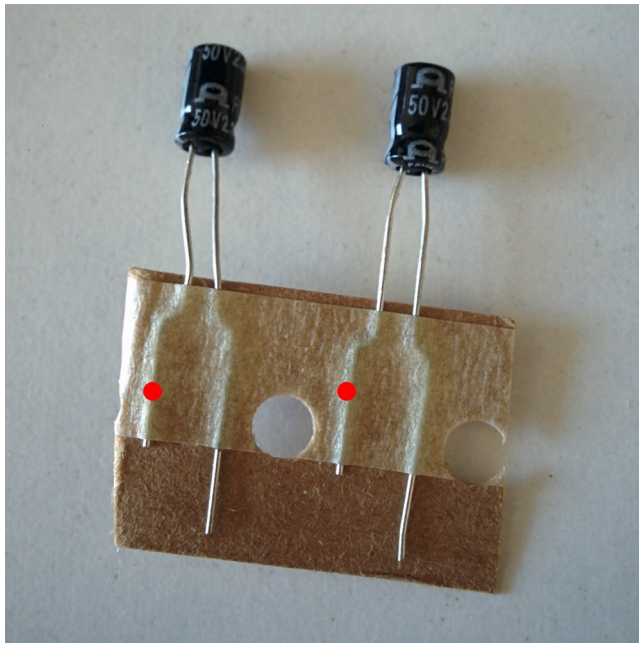
Note the red dot, that's where the short leg should go. Since there should be room for a pot just to the left of it, you should make some slack or even place the pot (no soldering) to make sure you have the room for it later.



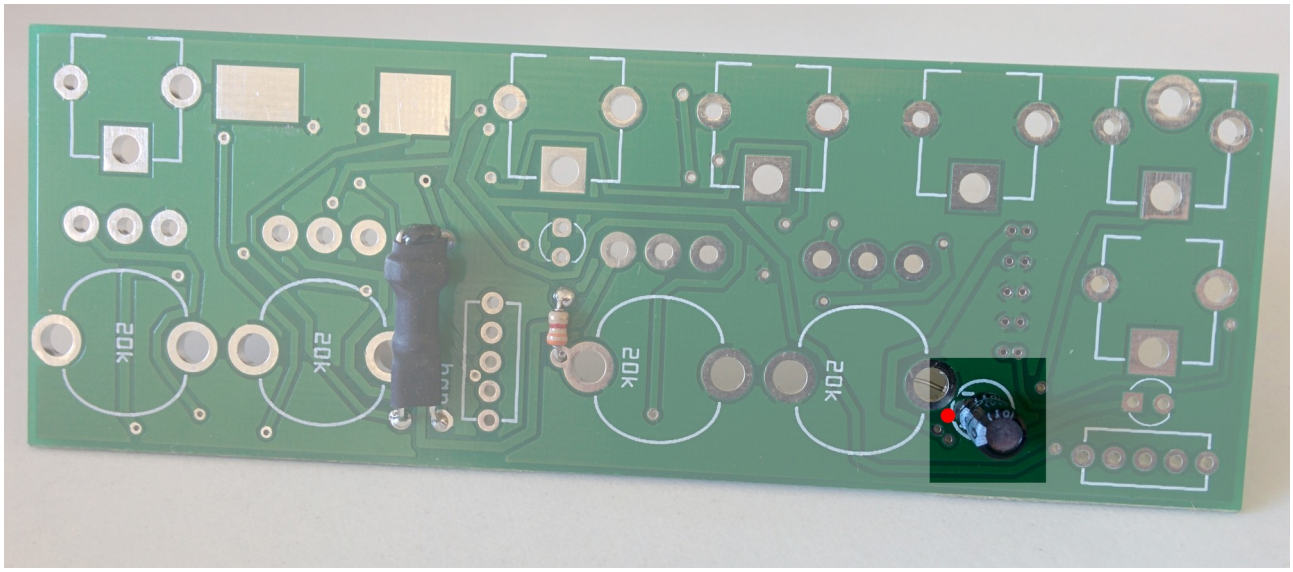
Now remove the pot, then go ahead and solder the vactrol.

Step 3 – capacitors

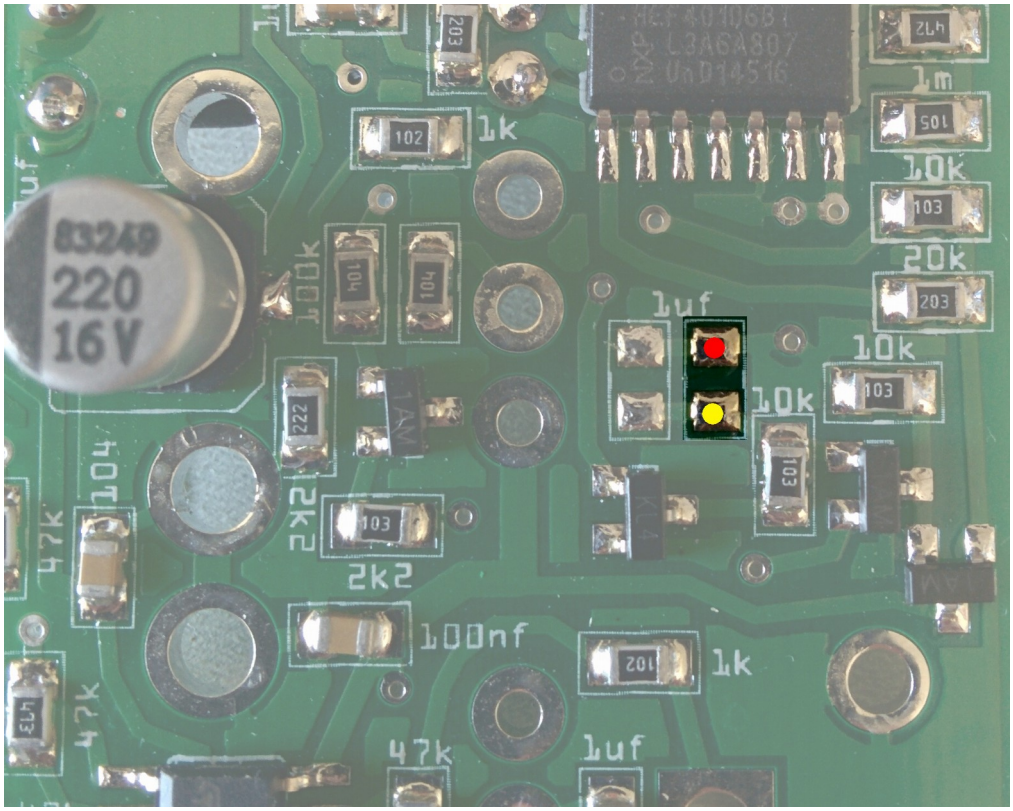
Identify the two capacitors, note the short leg (red dot)



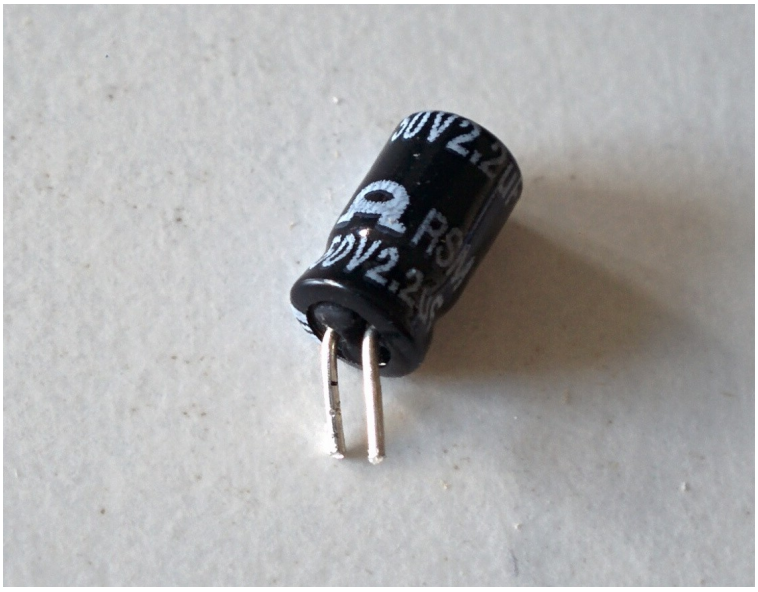
The short leg (also marked on the cap with a white stripe) is the negative lead, and should go into the hole marked – on the PCB. The two caps go on each side of the PCB. First place and solder the one on the same side as the resistor and the vactrol, note the red dot, marking the short leg:



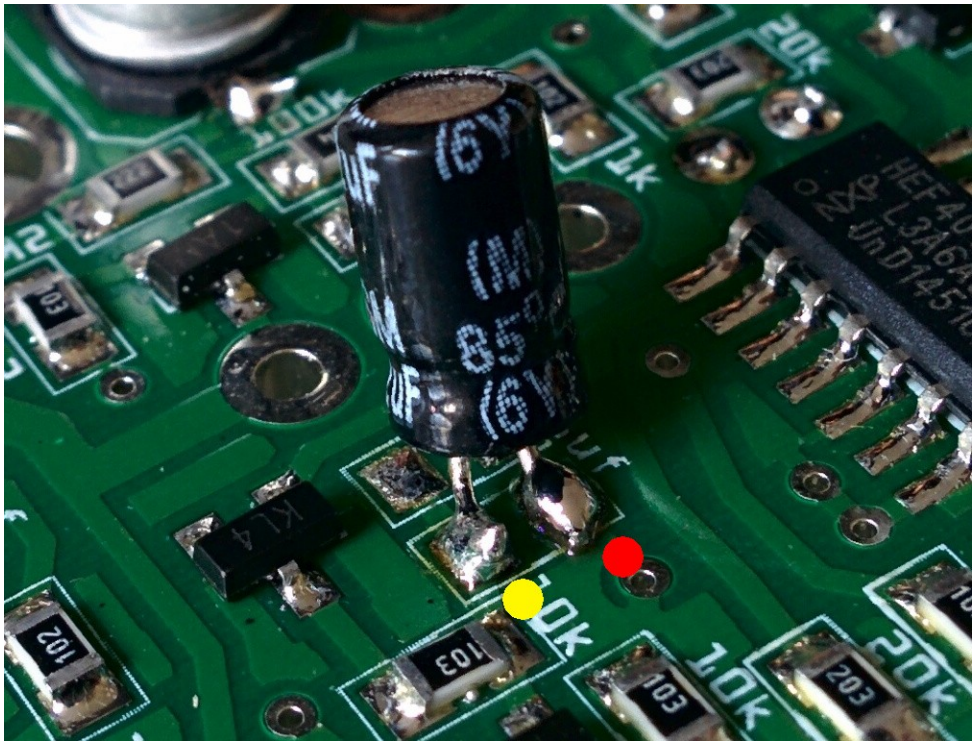
The other cap goes on the other side of the PCB and has to be soldered on the SMD pads close to the large pre-soldered IC. Short leg goes (negative lead, marked on the cap with a white stripe) on the pad with the red dot, long leg on the pad with the yellow dot.



Cut the legs of the cap short. Obviously, from now on, you won't know which leg is the short leg, except from looking at the white stripe, which is where the short leg used to be

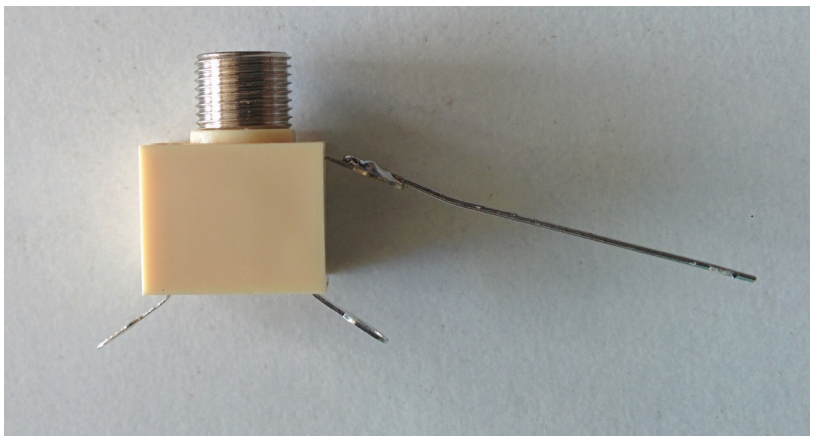


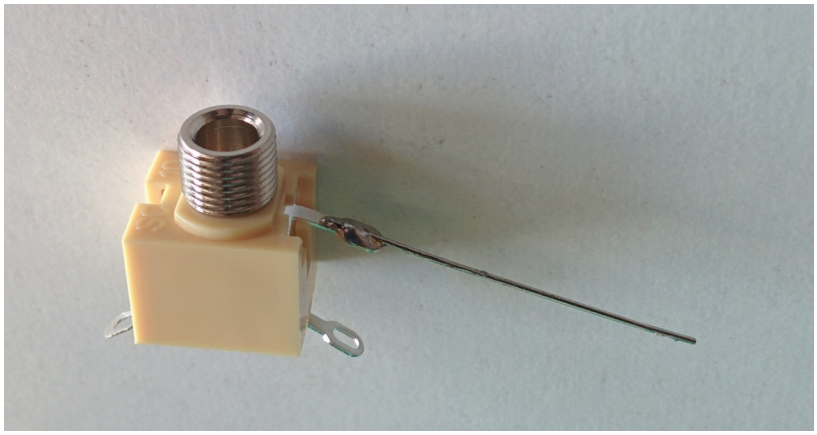
Soldering the cap on the SMD pads is a bit tricky, use pliers, be careful not the apply too much extra solder, and make sure you don't make solder bridge to either any of the other (unused) SMD pads or the resistor close to the yellow dot, or that the cap is touching the empty pads below it. Note the orientation of the cap, in this picture, the white stripe (short leg, red dot) is on the back side, away from the camera.



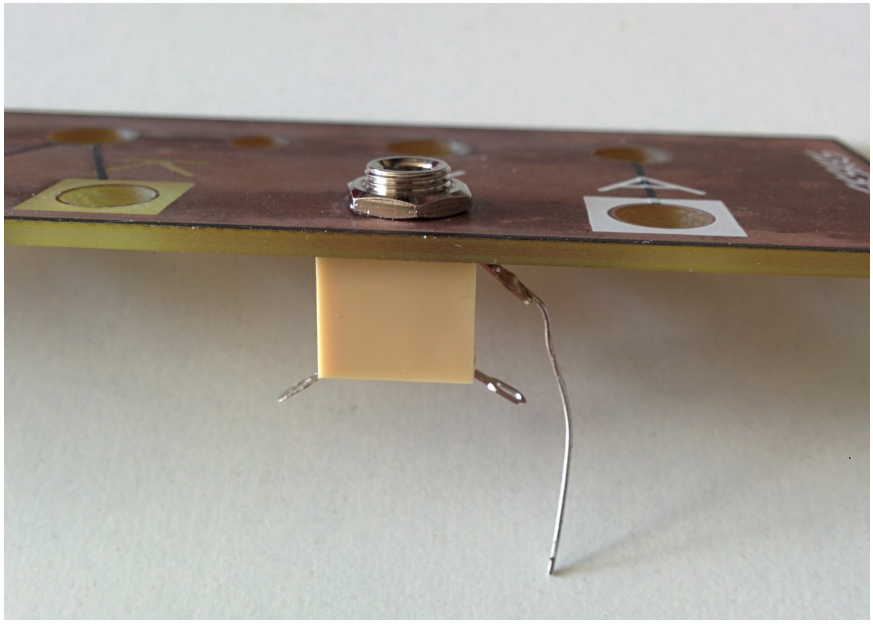
Step 4 – prepare lonely jack

The one jack that's different from the rest has to be soldered to the to large, free pads on the PCB with a recycled resistor leg going into the neighbourgh jack hole. Solder a recycled resistor leg to the top leg and bend the legs slightly:

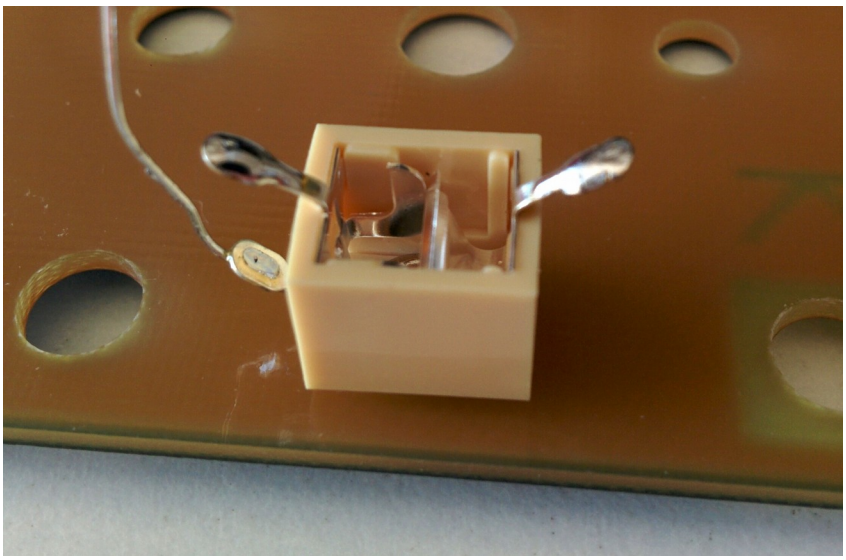




Now screw the lonely jack in place on the panel

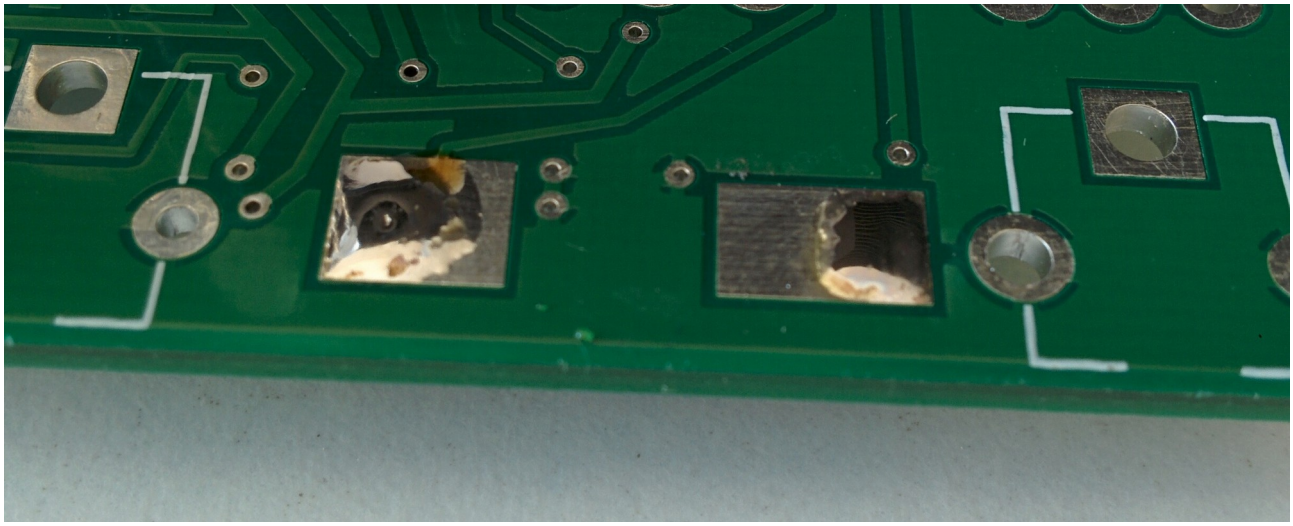


Turn the panel over and apply a blob of solder on the two legs (not the one with the recycled reresistor led soldered to it)

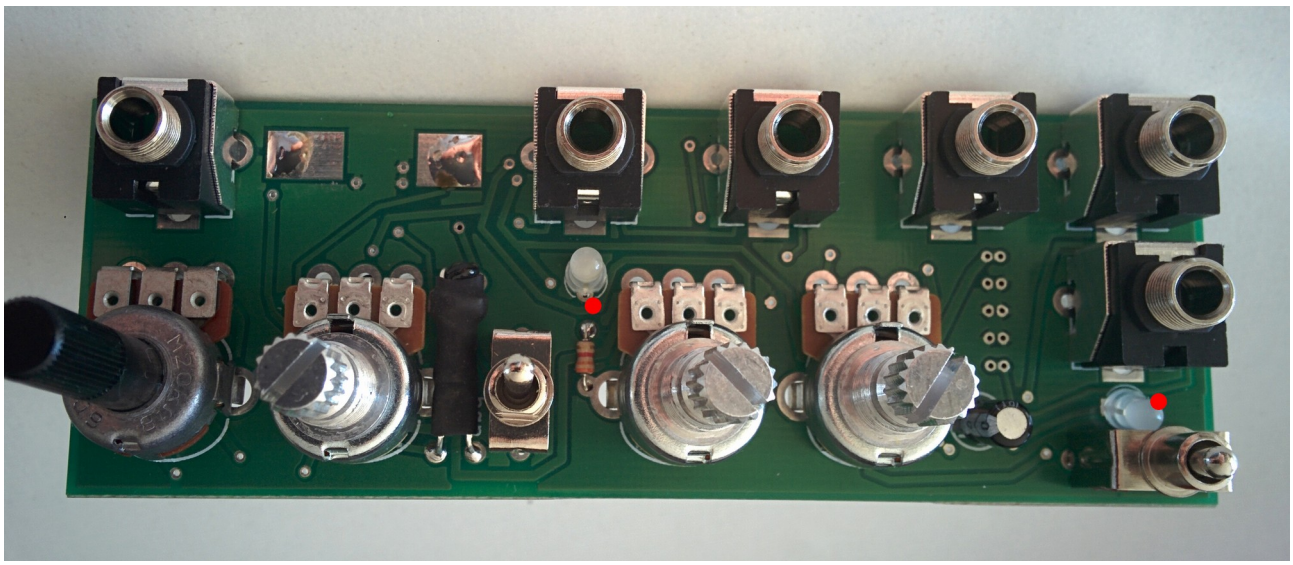


Step 5 – prepare panel

Apply a blob of solder to the free pads on the PCB

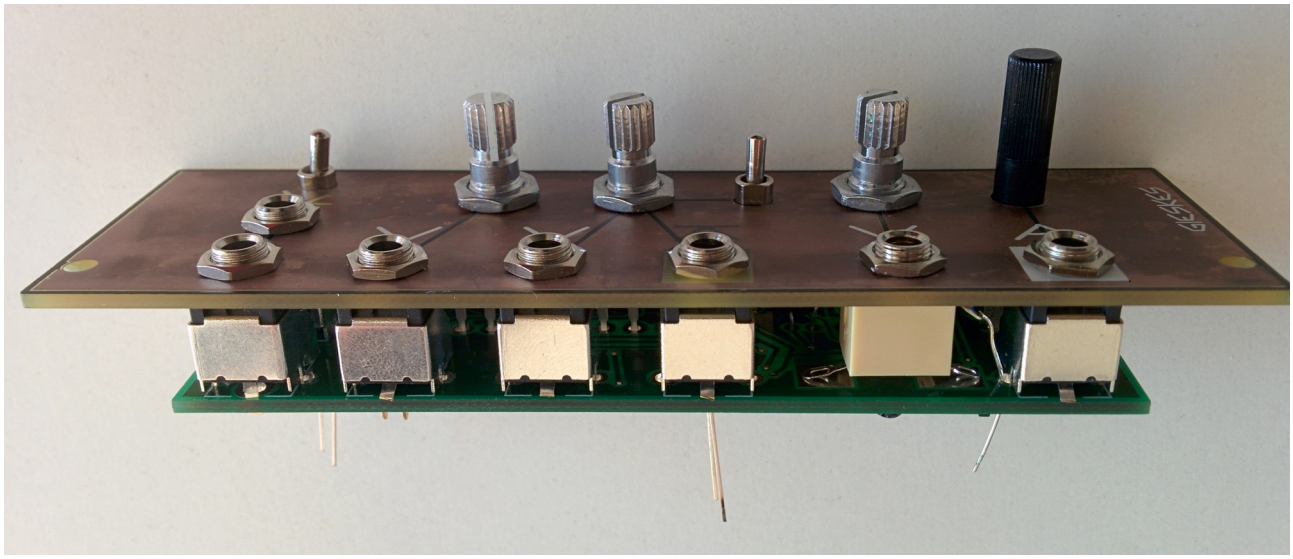


Remove bolts from all pots and jacks. The short leg of the LEDs is the negative lead. Now place the two leds and all the pots and jack, except the one jack that's different, on the PCB, but DON'T SOLDER ANYTHING yet! The short leg of the LEDs goes into the holes marked with a red dot.

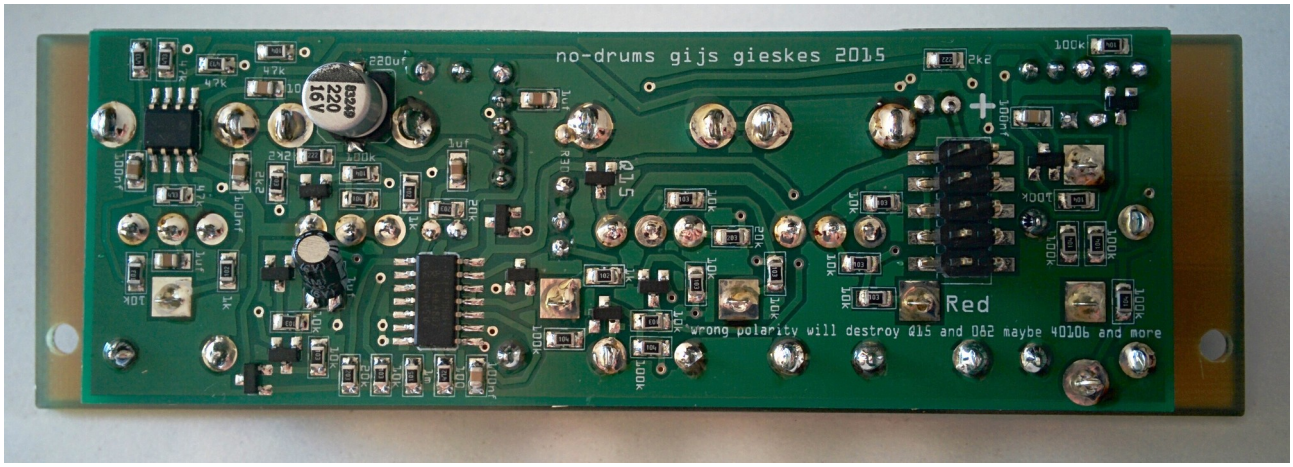


Step 6 – panel and knobs

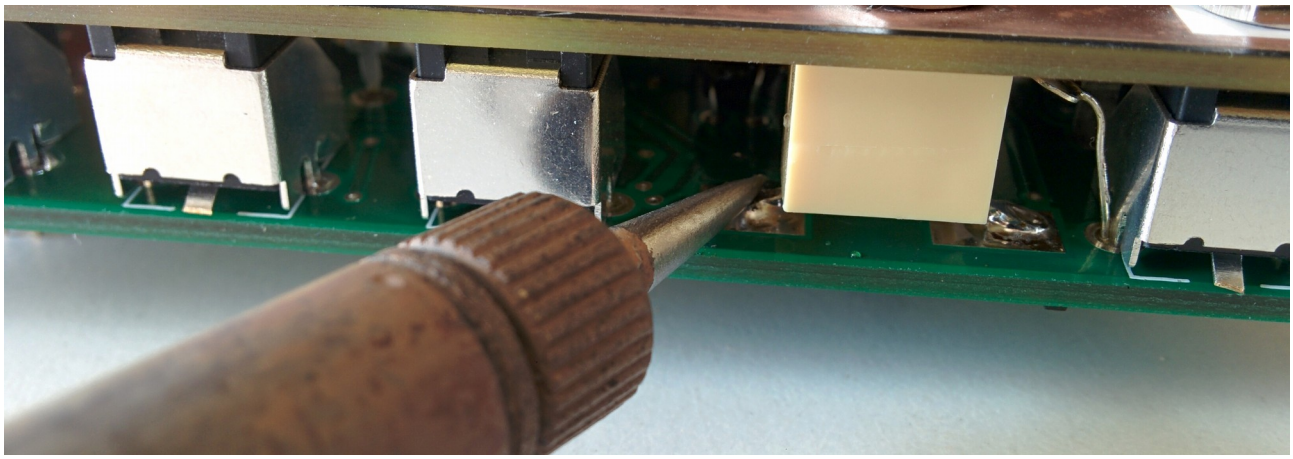
Slide the panel over the knobs and jacks, while manouvering the recycled resistor led on the lonely jack into the neighbourg jacks closest hole. Place bolts on jacks and pots and tighten without over doing it. Note that four of the jacks will have to have one leg bend over the edge of the PCB, because there's no hole in the PCB for them, cut them off after tighting the bolts. Note: in the photo there's no solder blob on neither the pads nor the lonely jack legs, although yours should!



Turn the board over and solder all jacks, pots and the two LEDs. You might want to pull the LEDs just a tad away from the panel before soldering, leaving about 1mm of space between the LEDs and the panel. Cut off the excess resister leg and the LEDs legs.



Now solder the lonely jack to the pads, by pressing the jack legs against the pads with the hot iron.

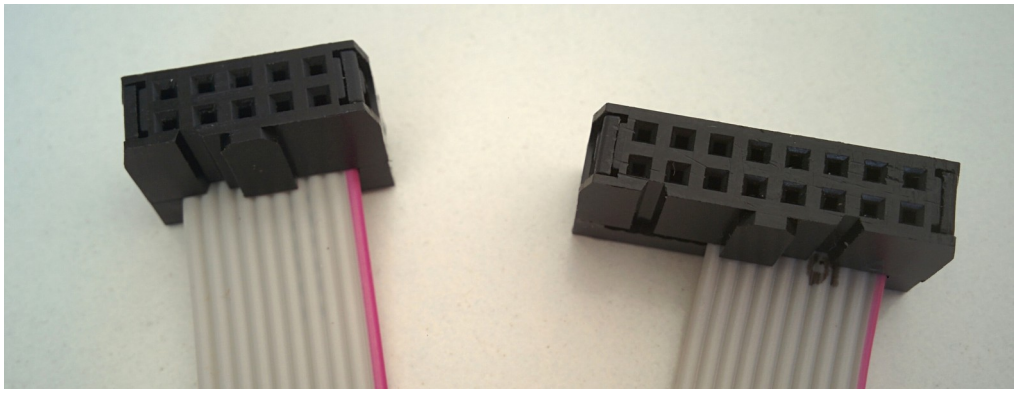


Finally, put the knobs on the pots

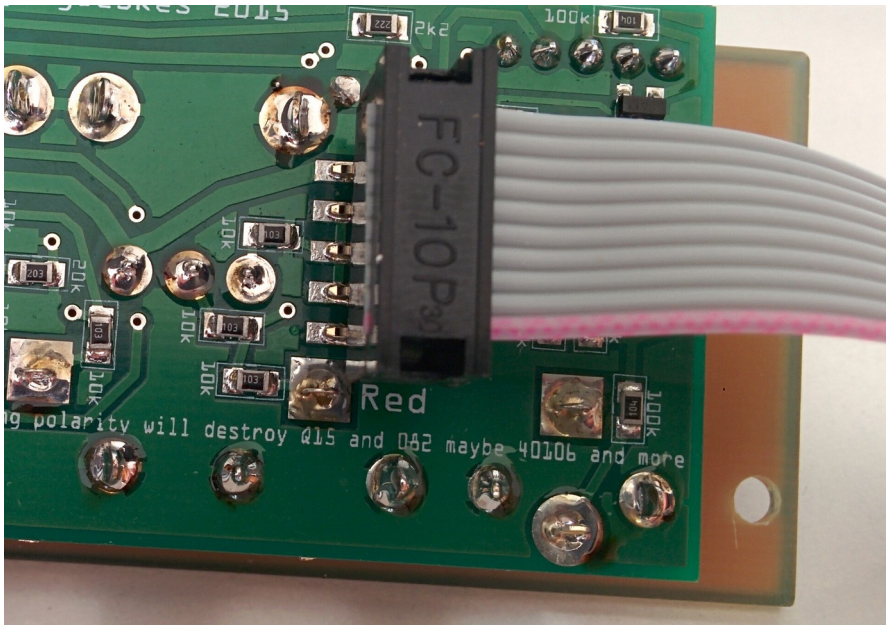
Step 7 – power cable

The no drums doesn't come with a ready-to-use power cable, but rather the parts needed to make your own cable.

Insert the 10-pin ribbon cable into the connectors and squeeze tight with a pipe wrench or the like. Make sure your alignment is correct, note the red stripe on the cable and the bumps on the connector.



Attach power cable, make sure to allign the red stribe on the cable with the word “Red” on the PCB.



Congratulation! Your no drums is now ready to make some noise!