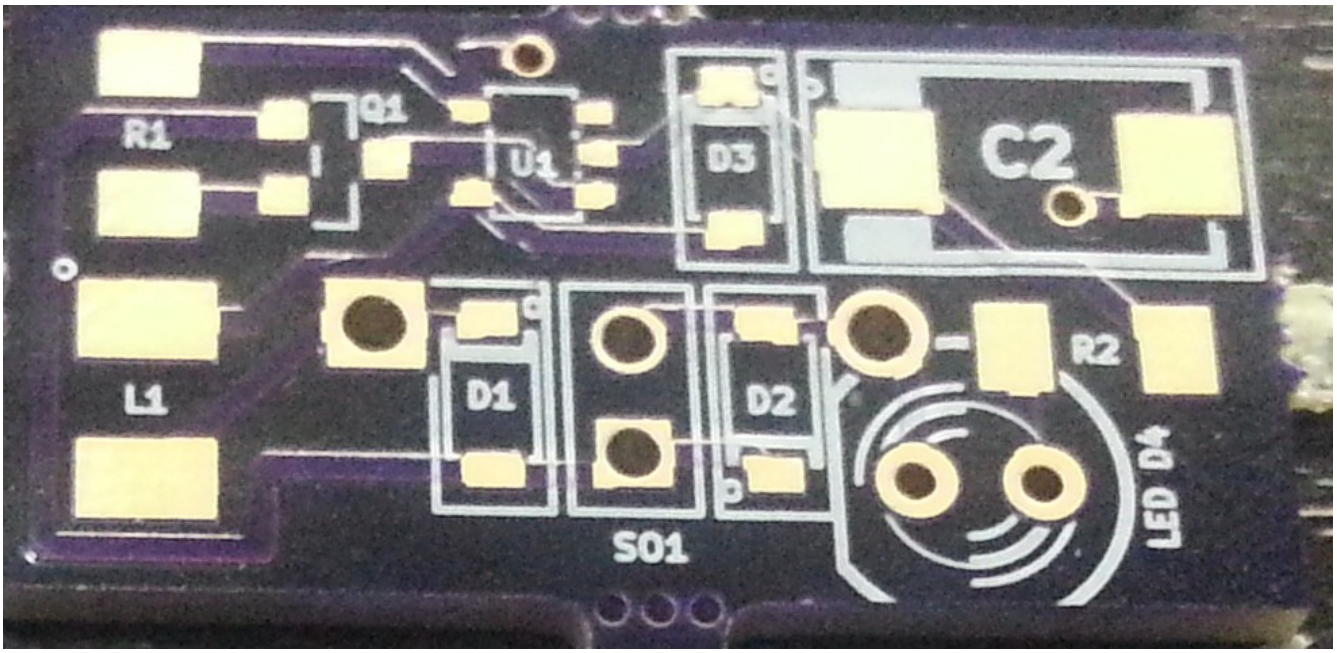
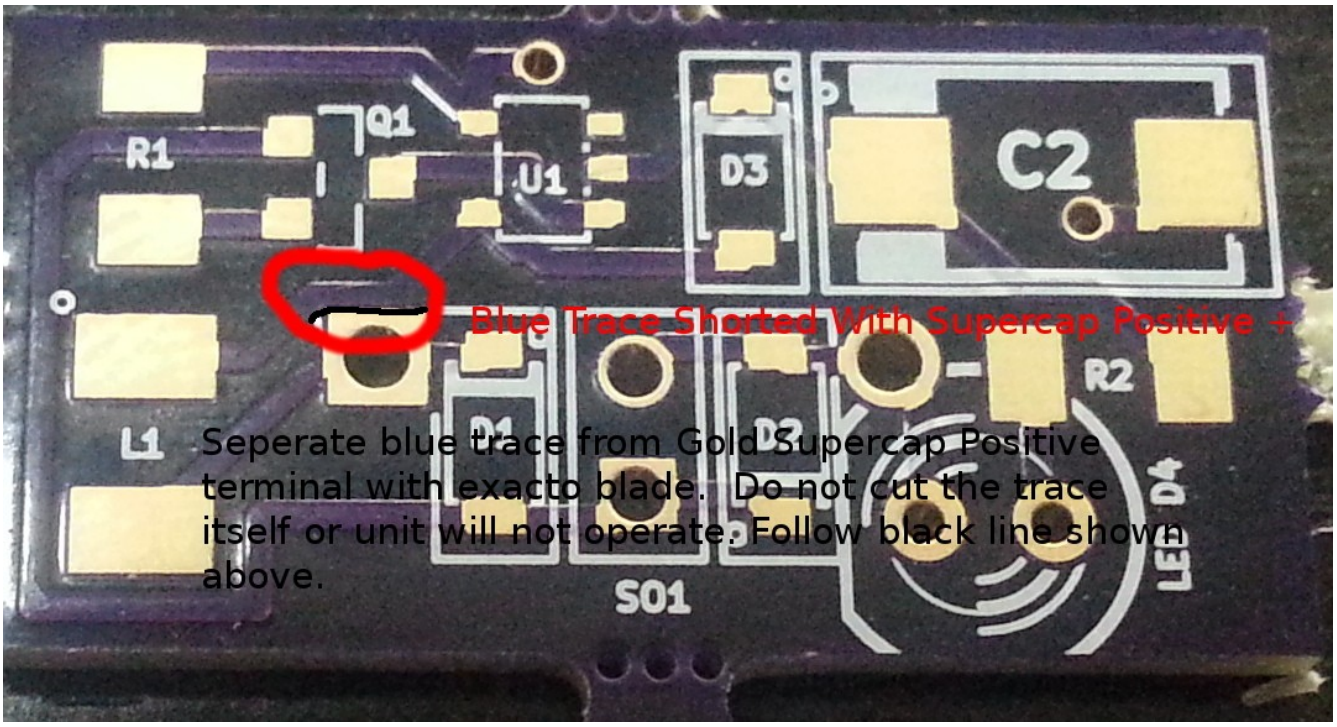
I have finally found out why the supercaps are bad. In fact they are not bad, but rather there is an electrical short on the newest boards that is killing the capacity of the supercapacitor. The inductor is being shorted out with the positive terminal of the supercap. Look below:



This is the bare board. I didn't even see the short. Look below again:



As you can see the trace coming from the top of L1 snakes around the positive terminal of the supercap and connects to the lower left corner of U1. What happened in this version of the circuit board is I enlarged the holes for the supercap but forgot to move the trace out of the way. The trace is actually touching the positive terminal of the supercap under the purple soldermask. This is causing most of the

power created my L1 to be wasted and not being sent up to U1. Use an exacto knife to seperate the trace from the positive terminal (see black line in last picture). This will remove the short circuit. DO NOT CUT THE TRACE WIDTHWISE or you will disconnect the top of L1 from U1 and then the unit will not work at all. This is 0.5oz copper you have to cut through so it is pretty thick. Take your time so you don't accidentally cut through the trace or worse slip and cut yourself in the process.

Once you have the trace cut put the unit in the sun for 8+ hours and it should perform significantly better.

The supercaps are still suspect so your mileage may vary but regardless this fix should net you a good increase in usability.