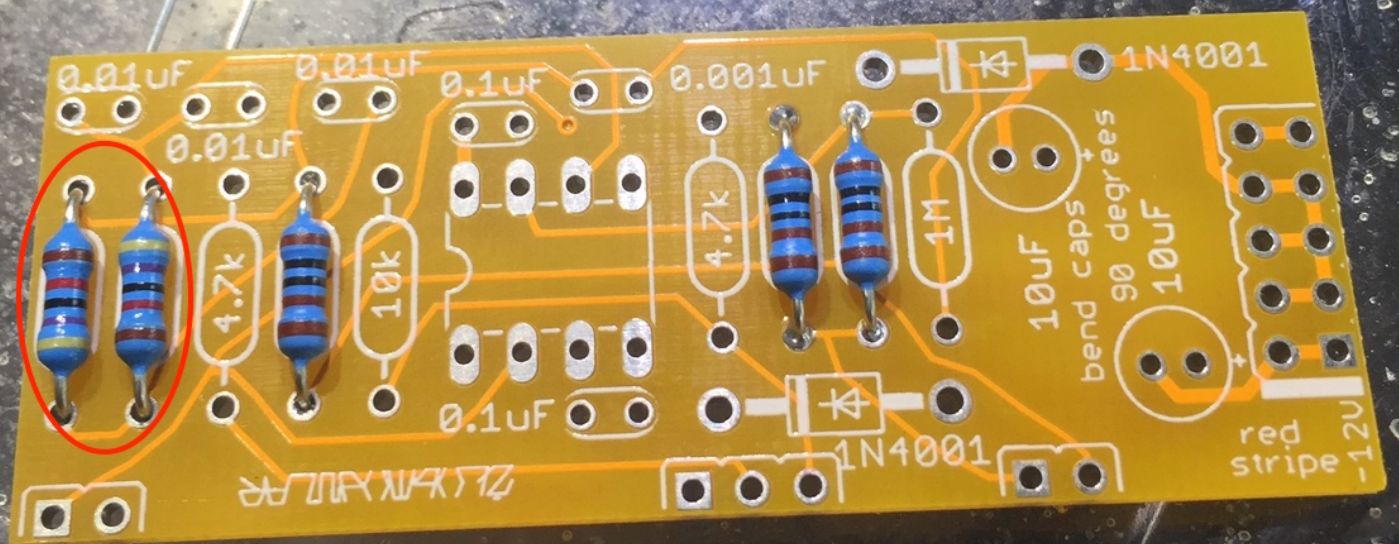
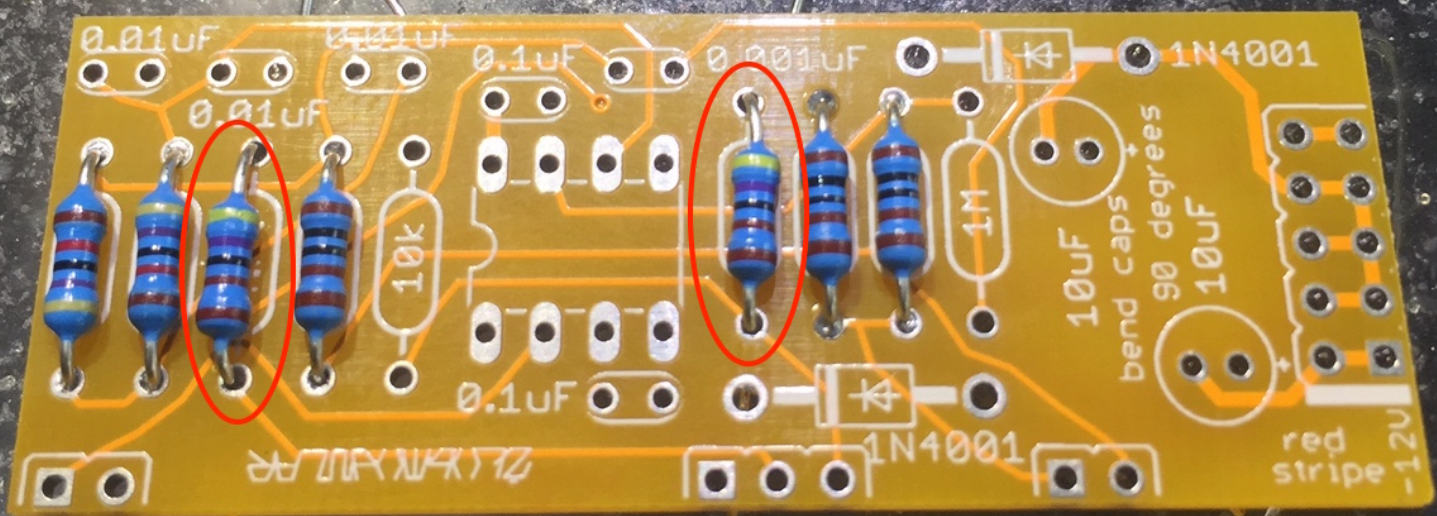




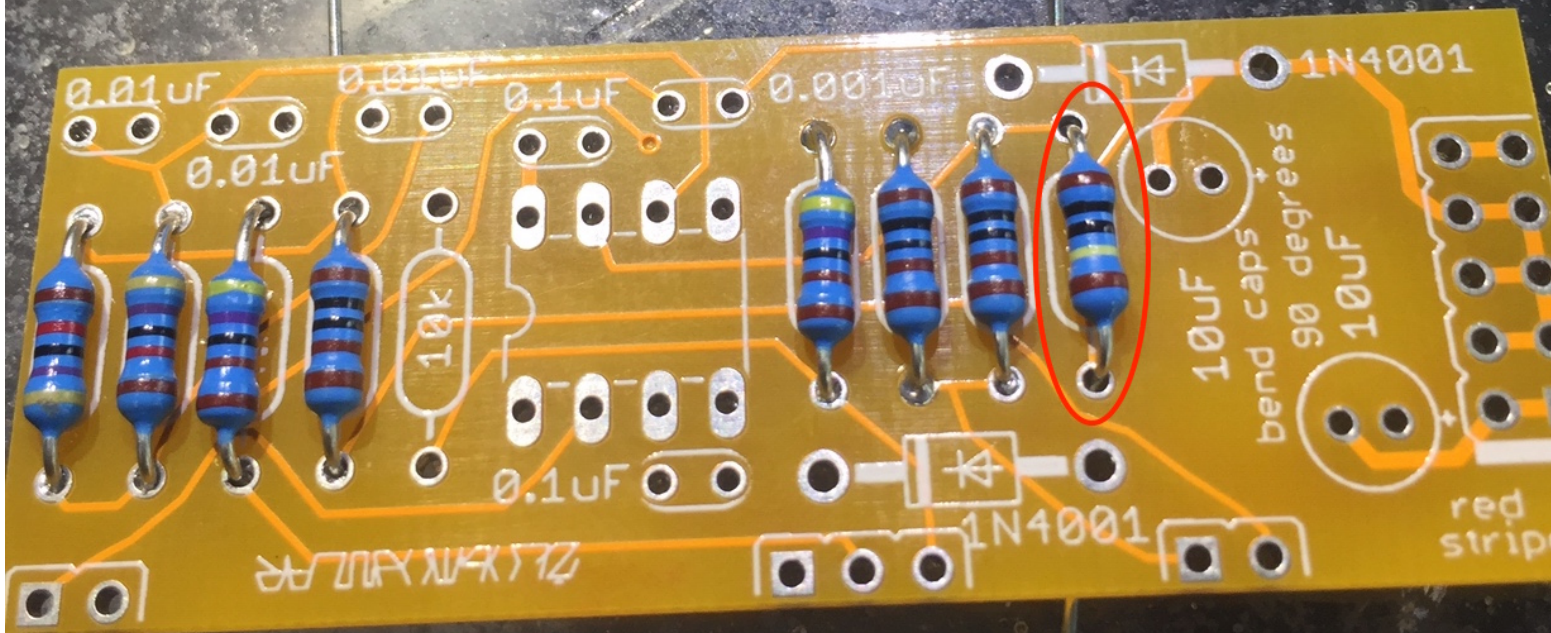
**TWO 47K RESISTORS  
YELLOW, PURPLE, BLACK, RED, BROWN**



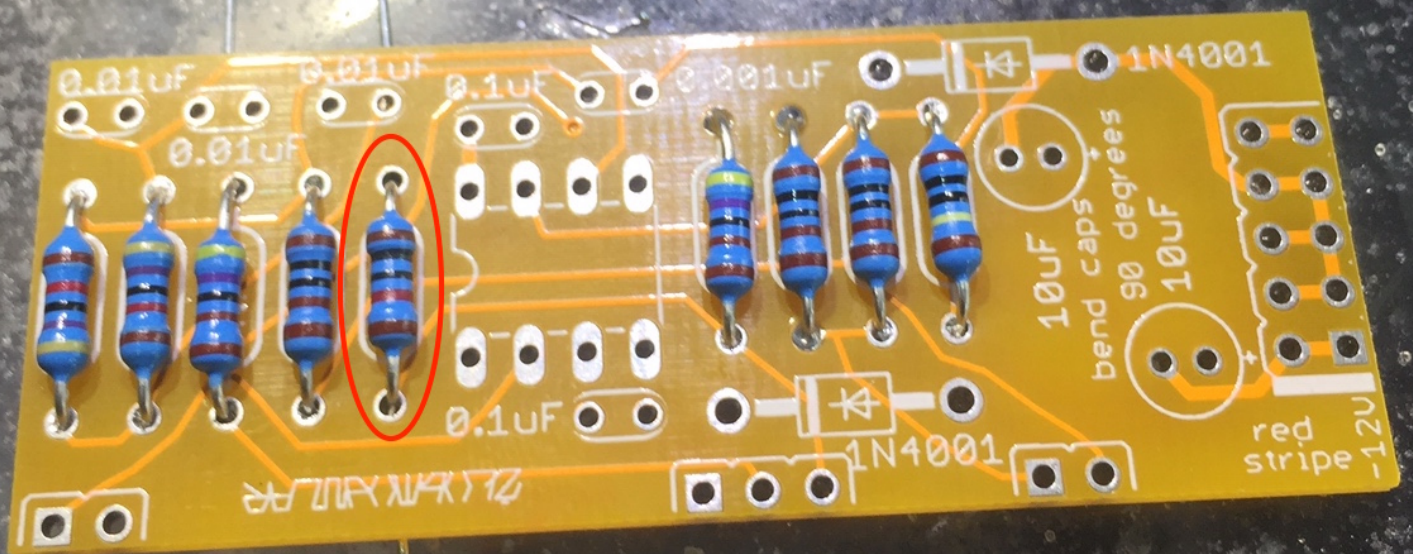
**TWO 4.7K RESISTORS  
YELLOW, PURPLE, BLACK, BROWN, BROWN**



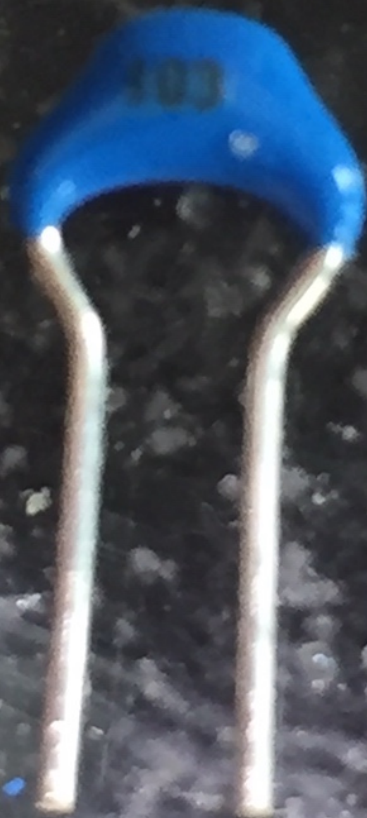
**ONE 1 M RESISTOR  
BROWN, BLACK, BLACK, YELLOW, BROWN**



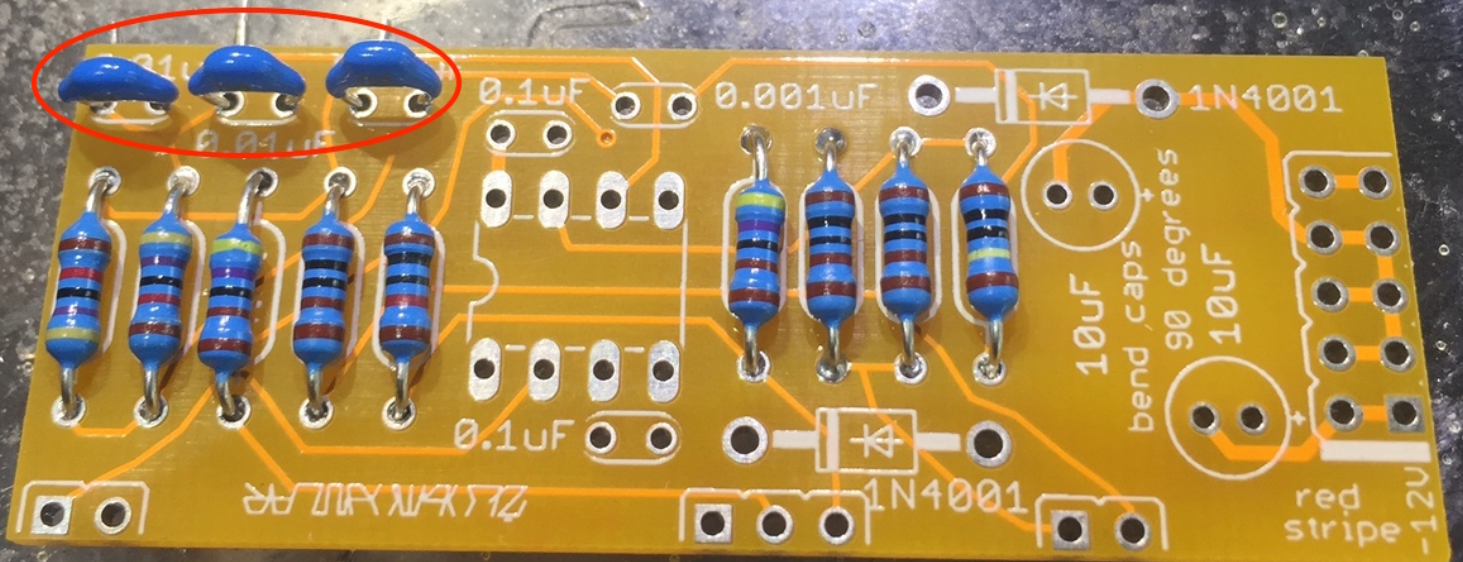
**ONE 10K RESISTOR  
BROWN, BLACK, BLACK, RED, BROWN**



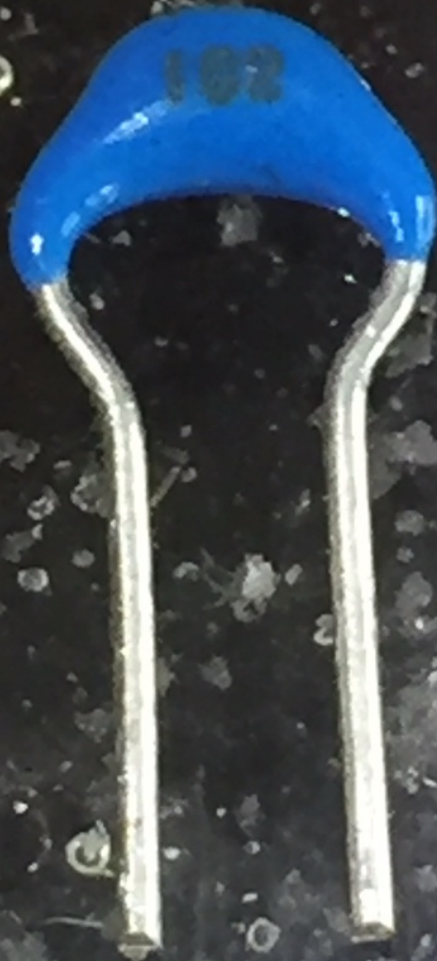
**THREE 0.01 UF CAPACITORS  
CODE 103**



THREE 0.01 uF  
CAPACITORS  
CODE 103

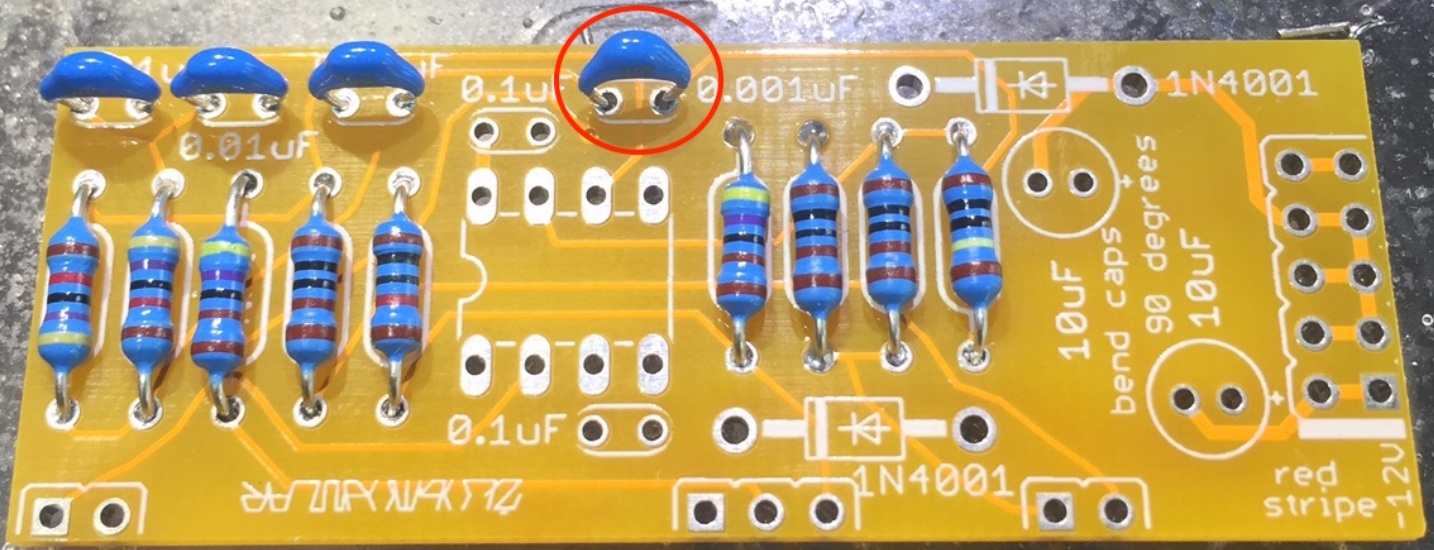


ONE 0.001 UF CAPACITOR  
CODE 102

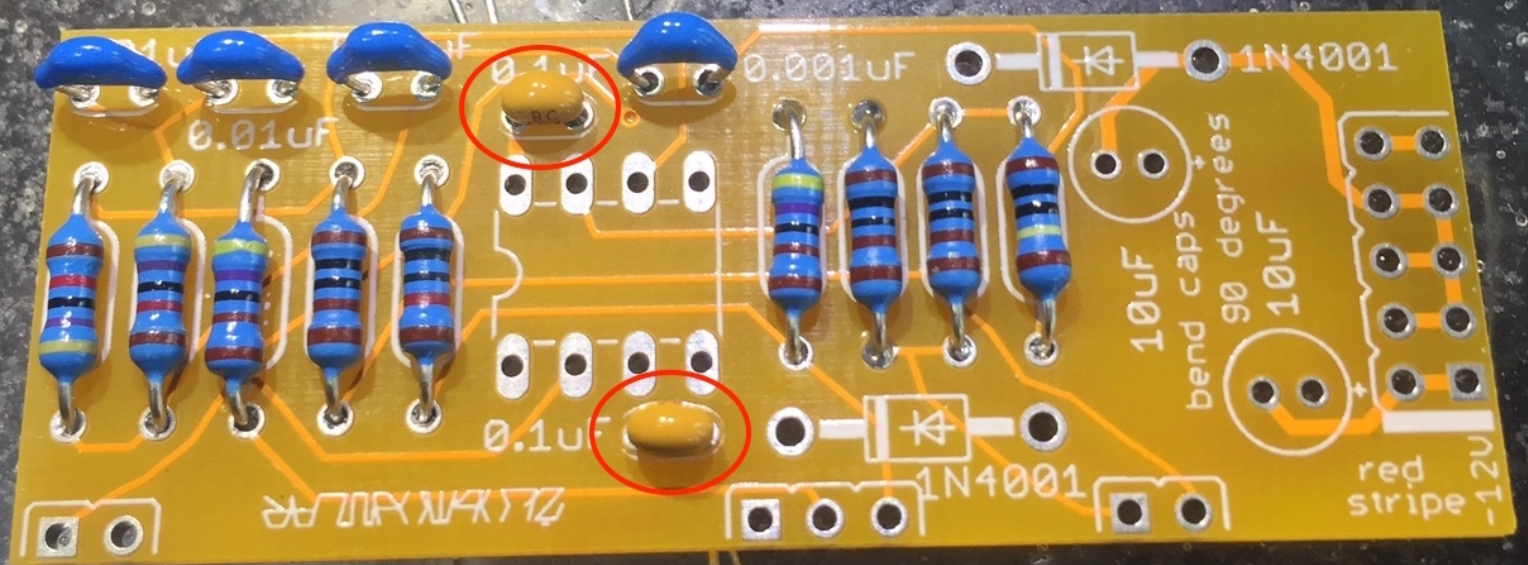




ONE 0.001 uF CAPACITOR  
CODE 102

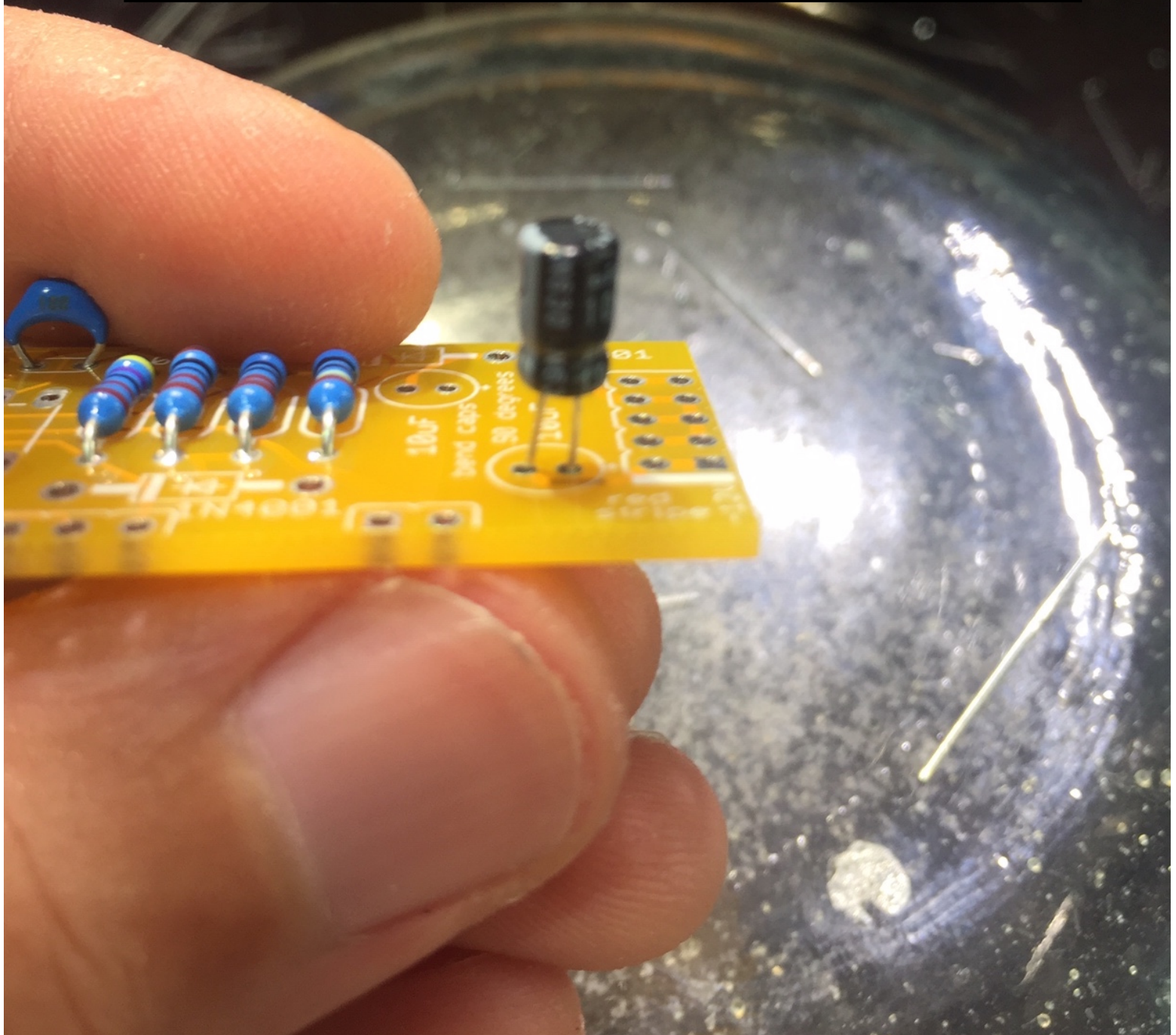


**TWO 0.1 uF CAPACITORS  
CODE 104**

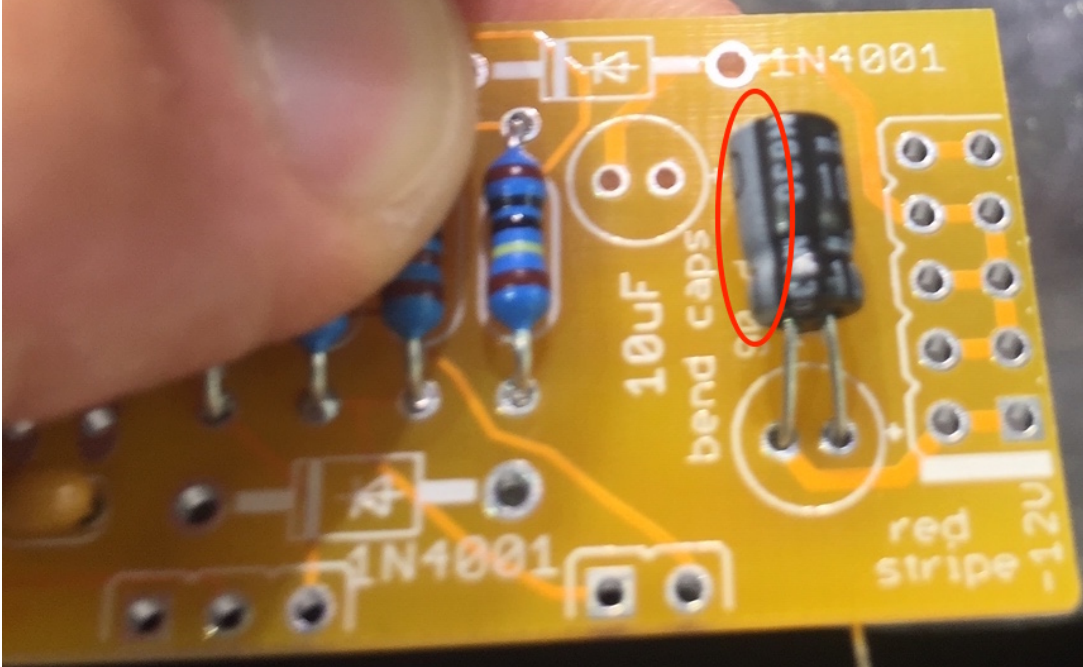


**THERE WILL BE ONE EXTRA  
0.1 uF FOR THE TOP PCB**

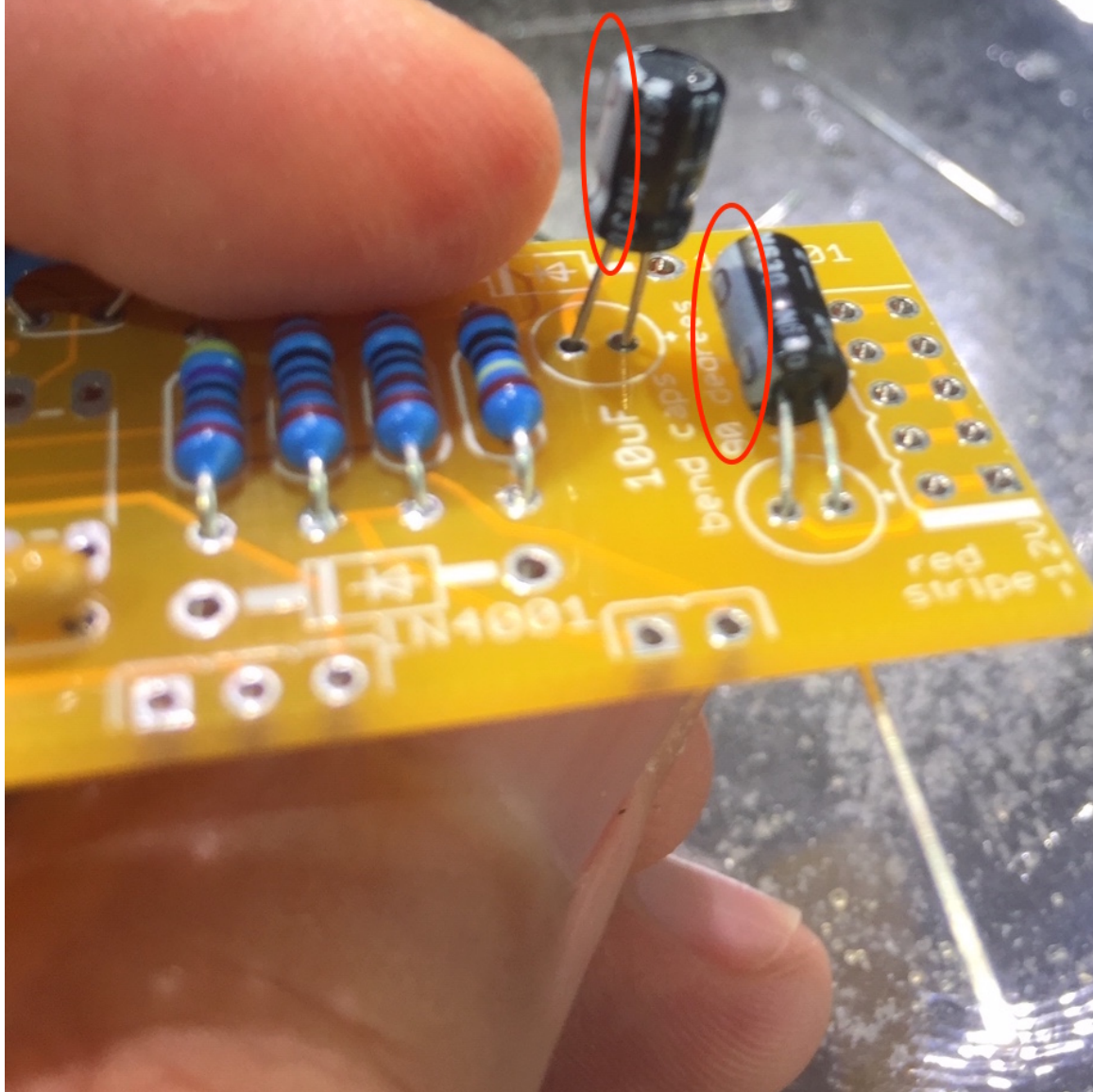
**TWO 10UF CAPS  
POLARITY MATTERS. STRIPE ON  
THE LEFT. INSERT HALF WAY  
THEN BEND AT A RIGHT ANGLE.**



**GENTLY BEND  
TOWARDS THE PCB**



**REPEAT FOR THE OTHER CAP.  
STRIPE ON THE LEFT**



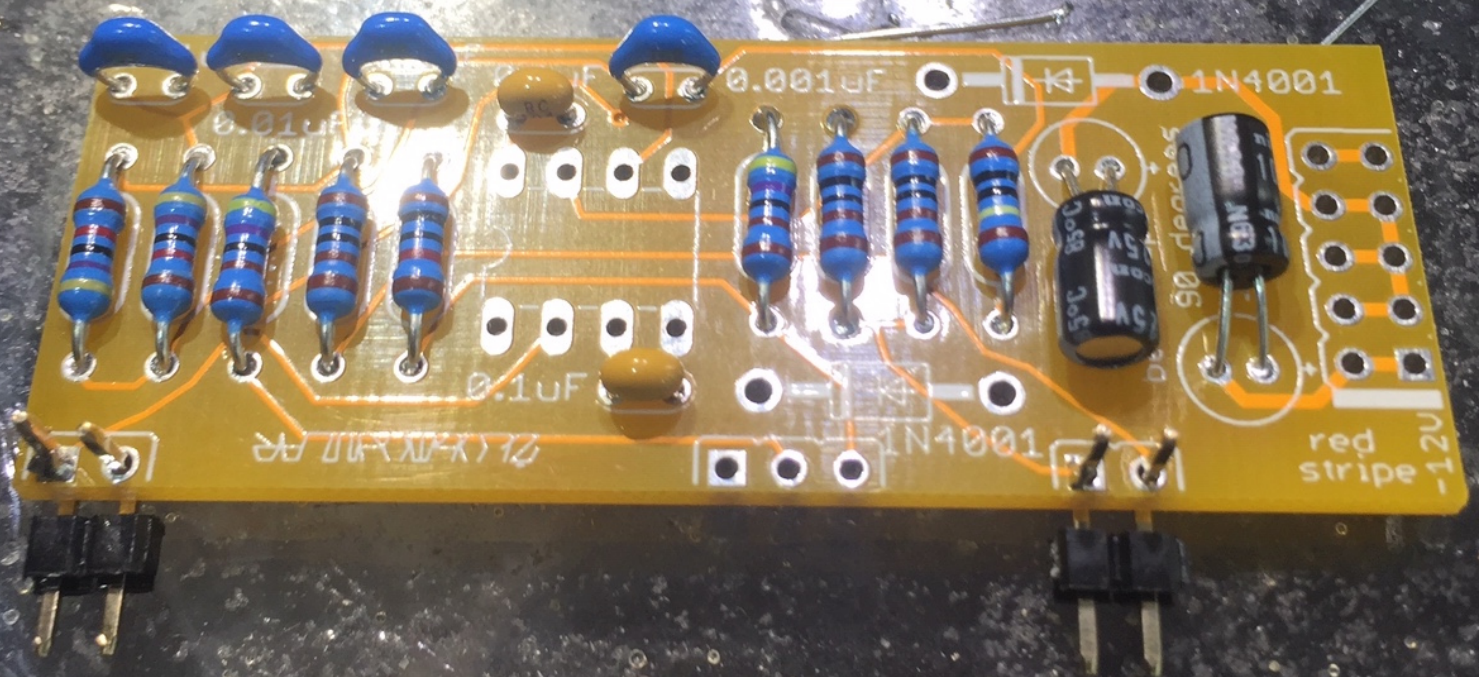
A close-up photograph showing a person's hand holding a yellow printed circuit board (PCB) over a metallic, reflective surface. The PCB is populated with several electronic components: a row of blue resistors, a yellow capacitor, and two electrolytic capacitors. The electrolytic capacitors are oriented with their positive terminals bent towards the PCB. The background is a dark, textured metal surface with some reflections. A black text box is overlaid on the image, containing the text "BOTH CAPS BENT TOWARDS THE PCB".

**BOTH CAPS BENT  
TOWARDS THE PCB**

**TWO 2PIN HEADERS. LONG END  
THROUGH BOTTOM OF PCB**

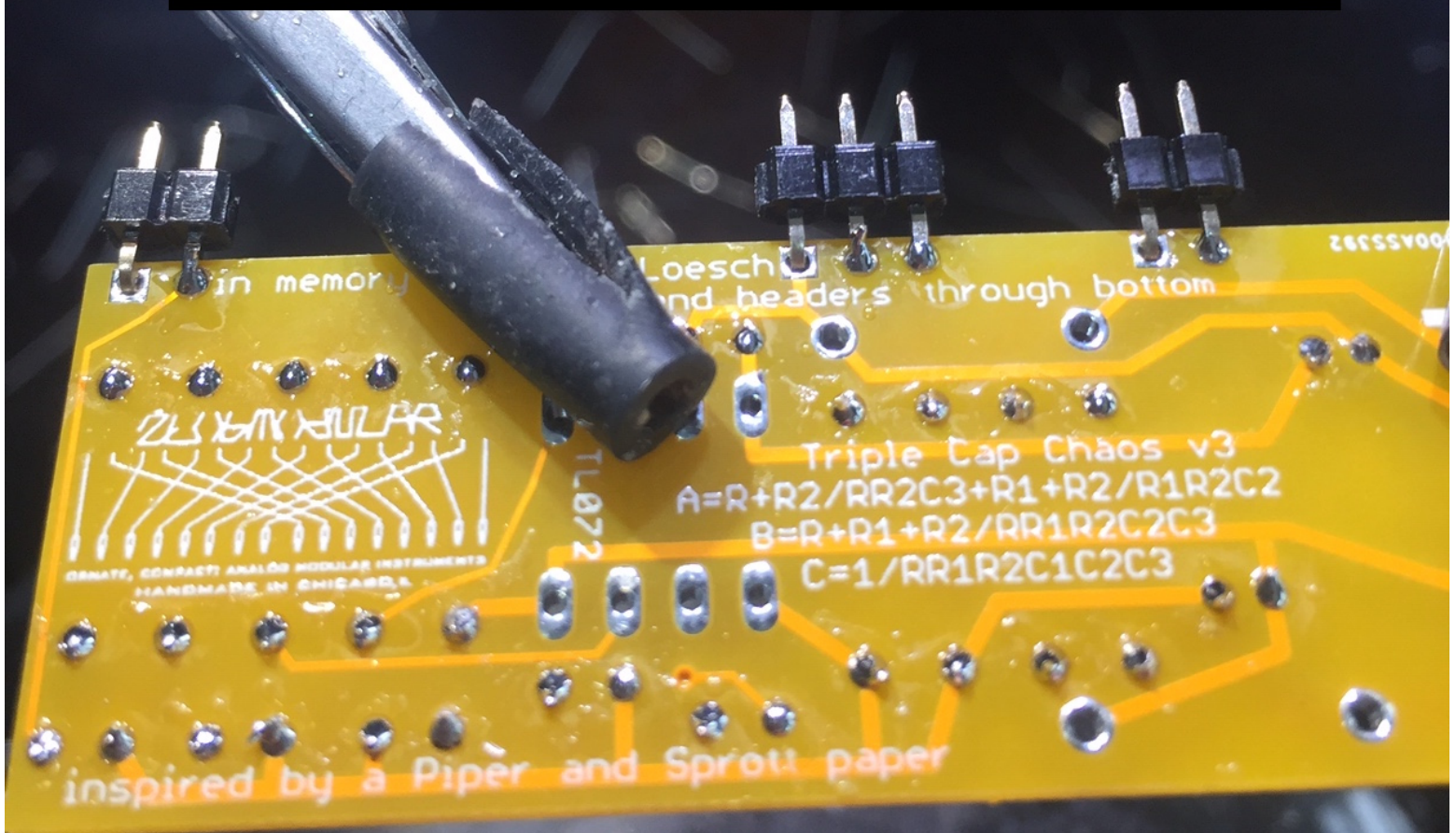


**BOTH 2 PIN HEADERS  
TACKED IN PLACE. MAKE  
SURE THEY ARE FLUSH WITH  
THE PCB.**





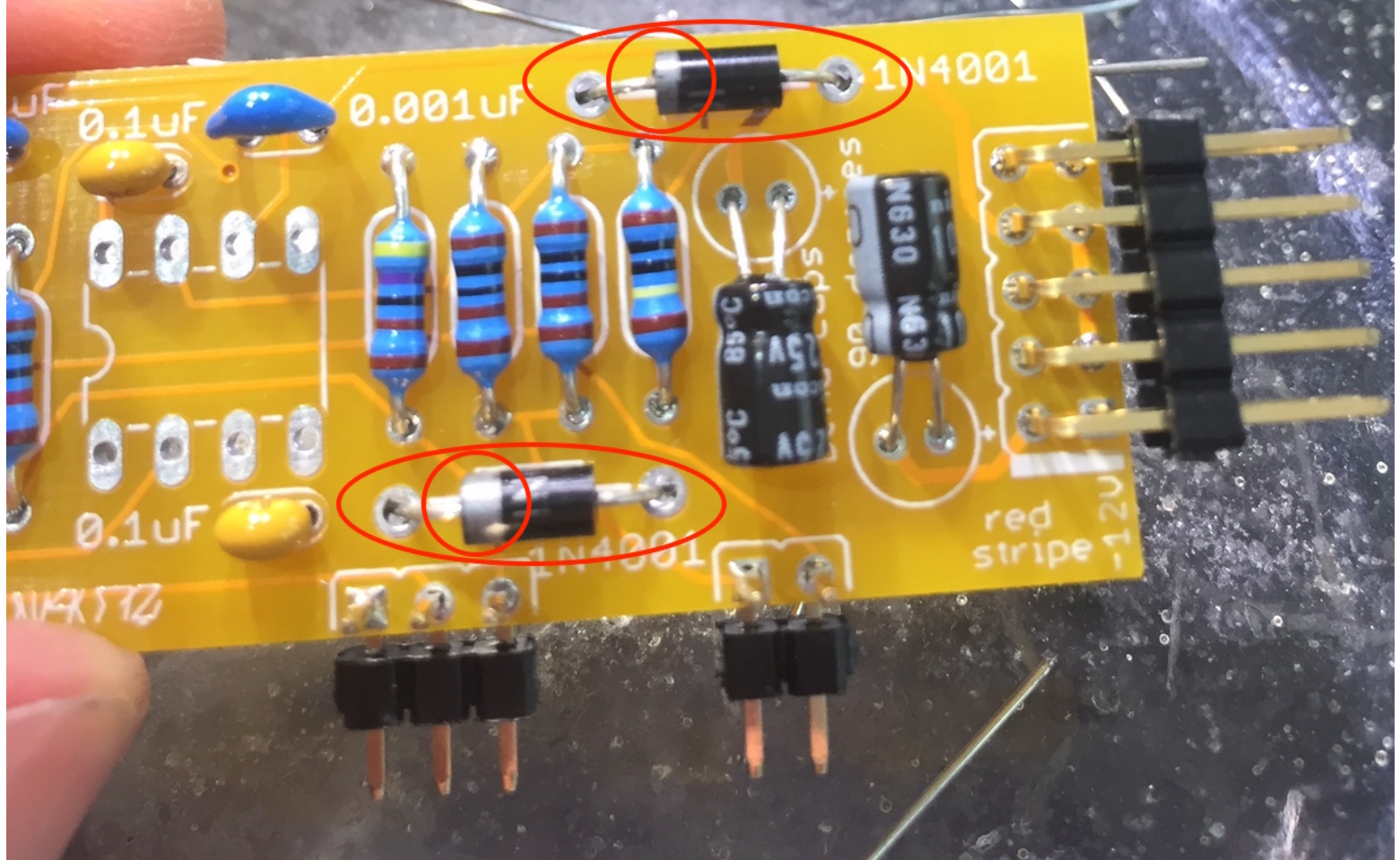
TACK THE 3PIN HEADER IN PLACE AS WELL. I SOLDER THE HEADERS FROM THE BOTTOM. BUT IT DOESNT MATTER SOLDERING FROM THE TOP OR BOTTOM. JUST MAKE SURE THEY ARE FLUSH AND SOLDERED WELL.



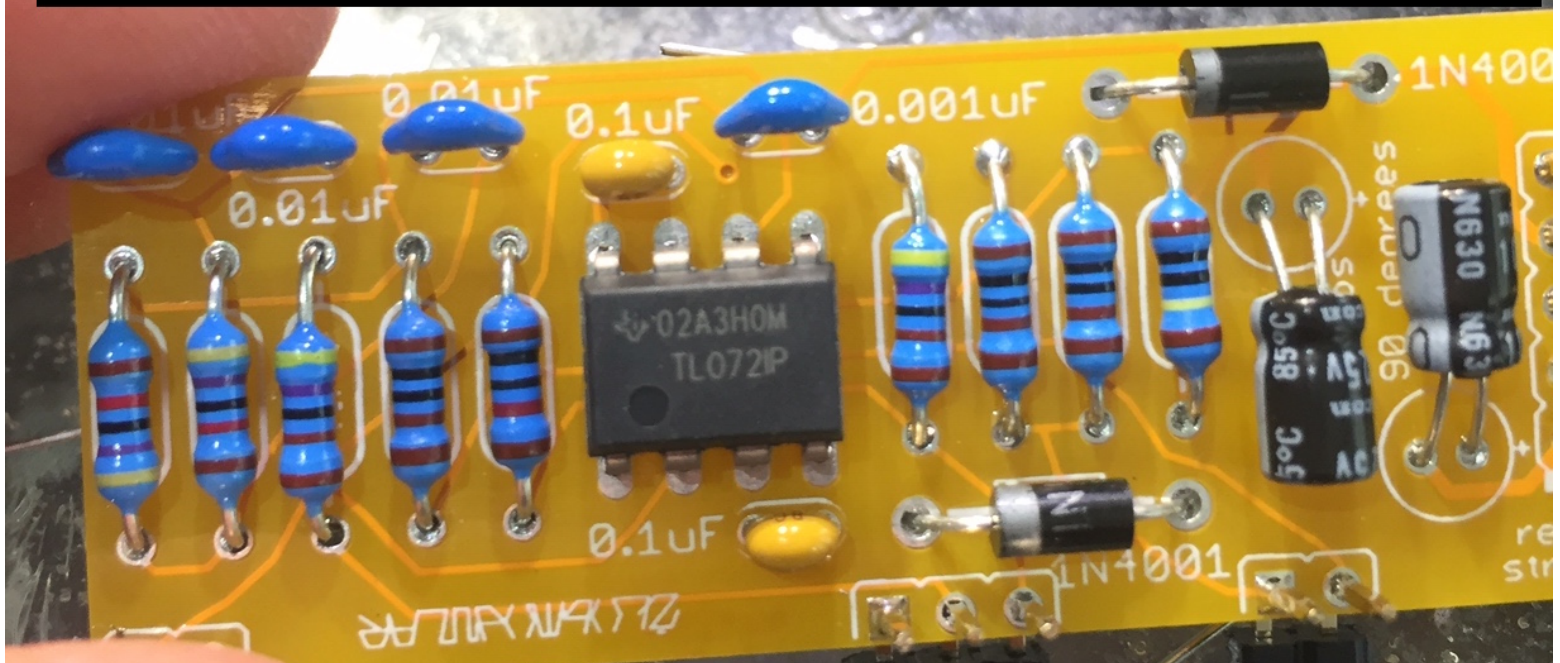
**RIGHT ANGLE 10  
PIN. SHORT SIDE  
THROUGH THE TOP  
OF THE PCB. MAKE  
SURE IT'S FLUSH**



**MAKE SURE THE HEADERS IS  
FLUSH AND SOLDER WELL.  
TWO 4001 DIODES. POLARITY IS  
IMPORTANT. STRIPES ARE ON THE  
LEFT**

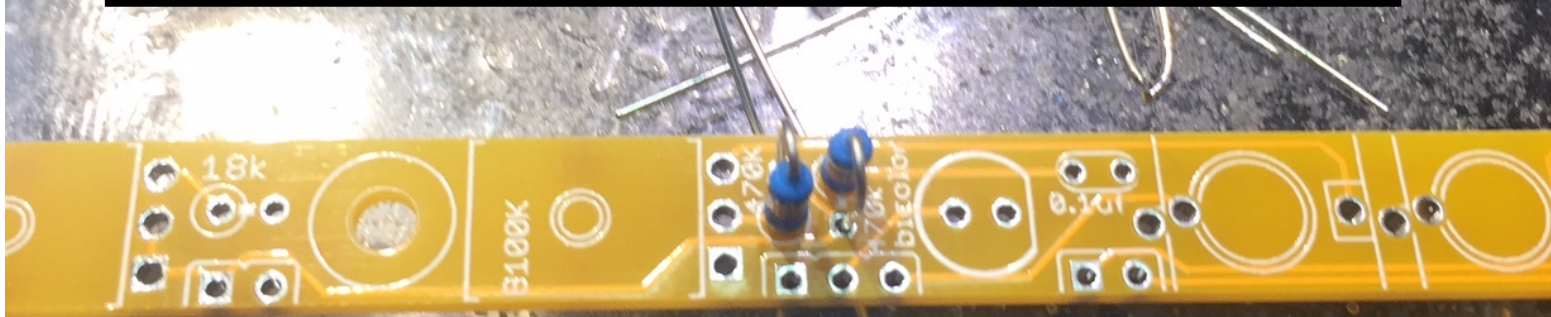


**ORIENTATION IS IMPORTANT. MAKE SURE THE DOT ON THE CHIP MATCHES THE NOTCH ON THE SILKSCREEN AND THE TEXT READS LEFT TO RIGHT. SOLDER CAREFULLY AND DO NOT APPLY TOO MUCH HEAT FOR TOO LONG.**



**IT IS POSSIBLE TO USE A SOCKET, BUT IT IS NOT RECOMMENDED BECAUSE ADDING IT WILL CAUSE THE CHIP TO EXTEND OUT OF THE 2HP WIDTH.**

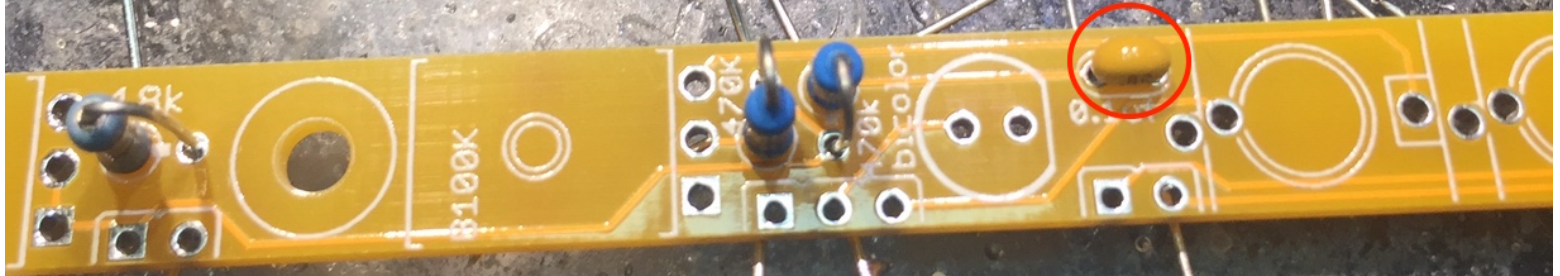
**TWO 470K  
YELLOW,PURPLE,BLACK,ORANGE,  
BROWN**



**ONE 18K  
BROWN,GRAY,BLACK,RED,BROWN**



ONE 0.1UF  
CODE 104

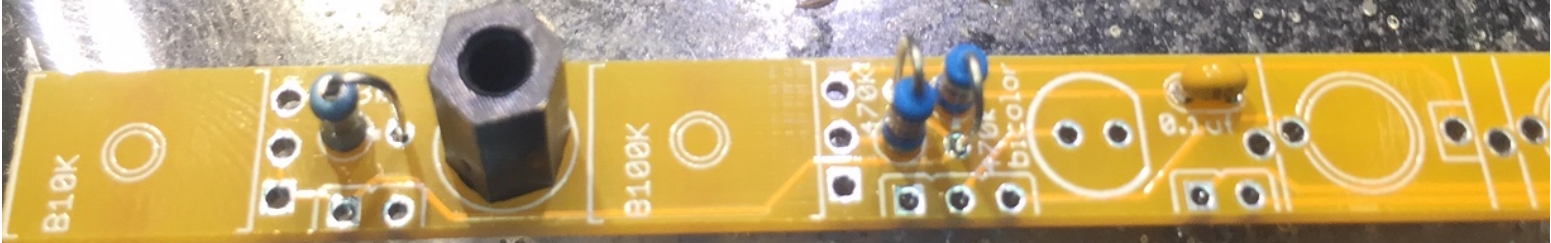


**SPACER AND NYLON SCREW.  
NYLON FLAT HEAD GOES  
THROUGH THE BOTTOM OF THE  
PCB**





**SPACER INSTALLED**

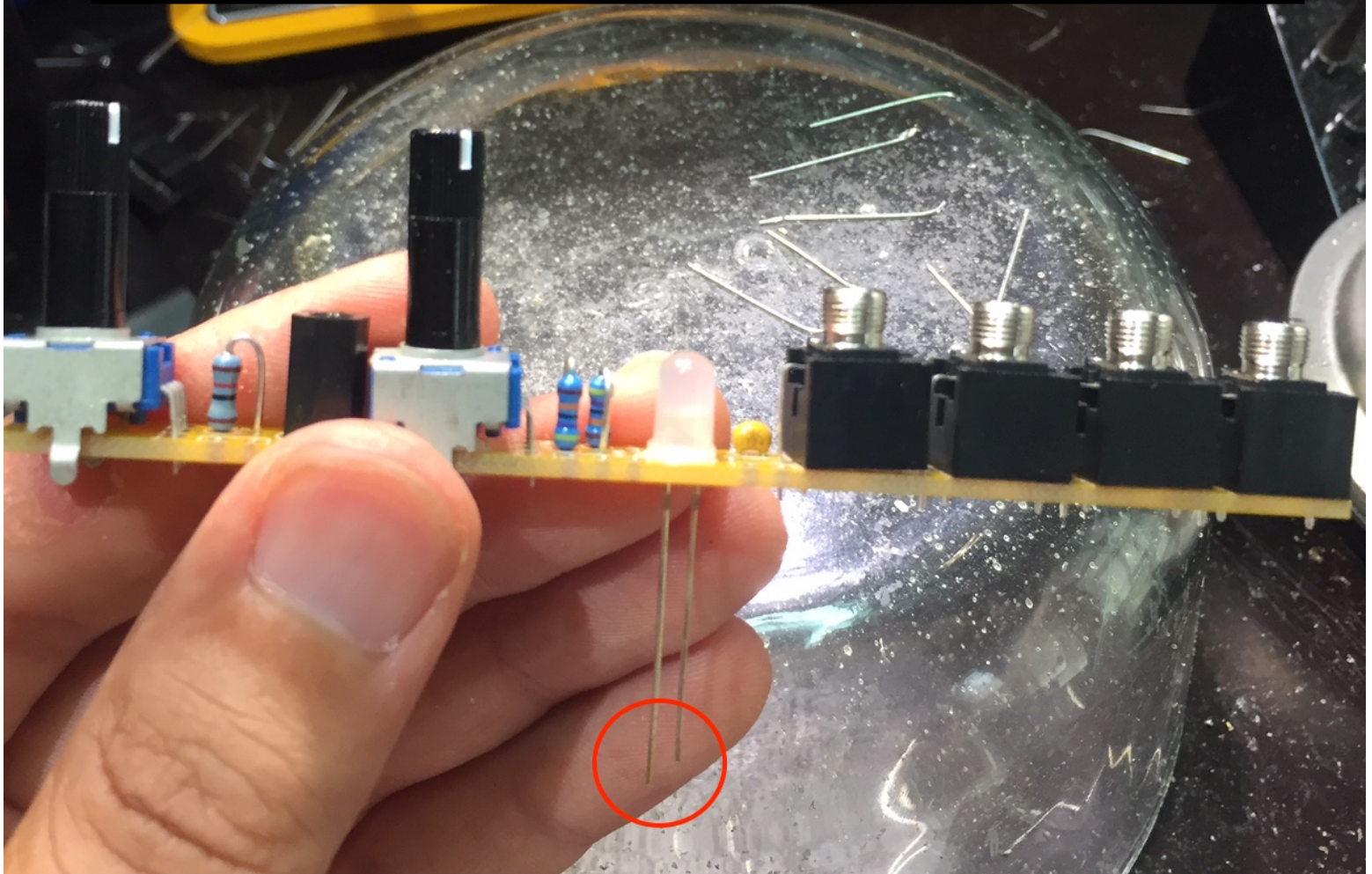




**MAKE SURE SPACER IS  
FLUSH WITH PCB. DO  
NOT OVER TIGHTEN**



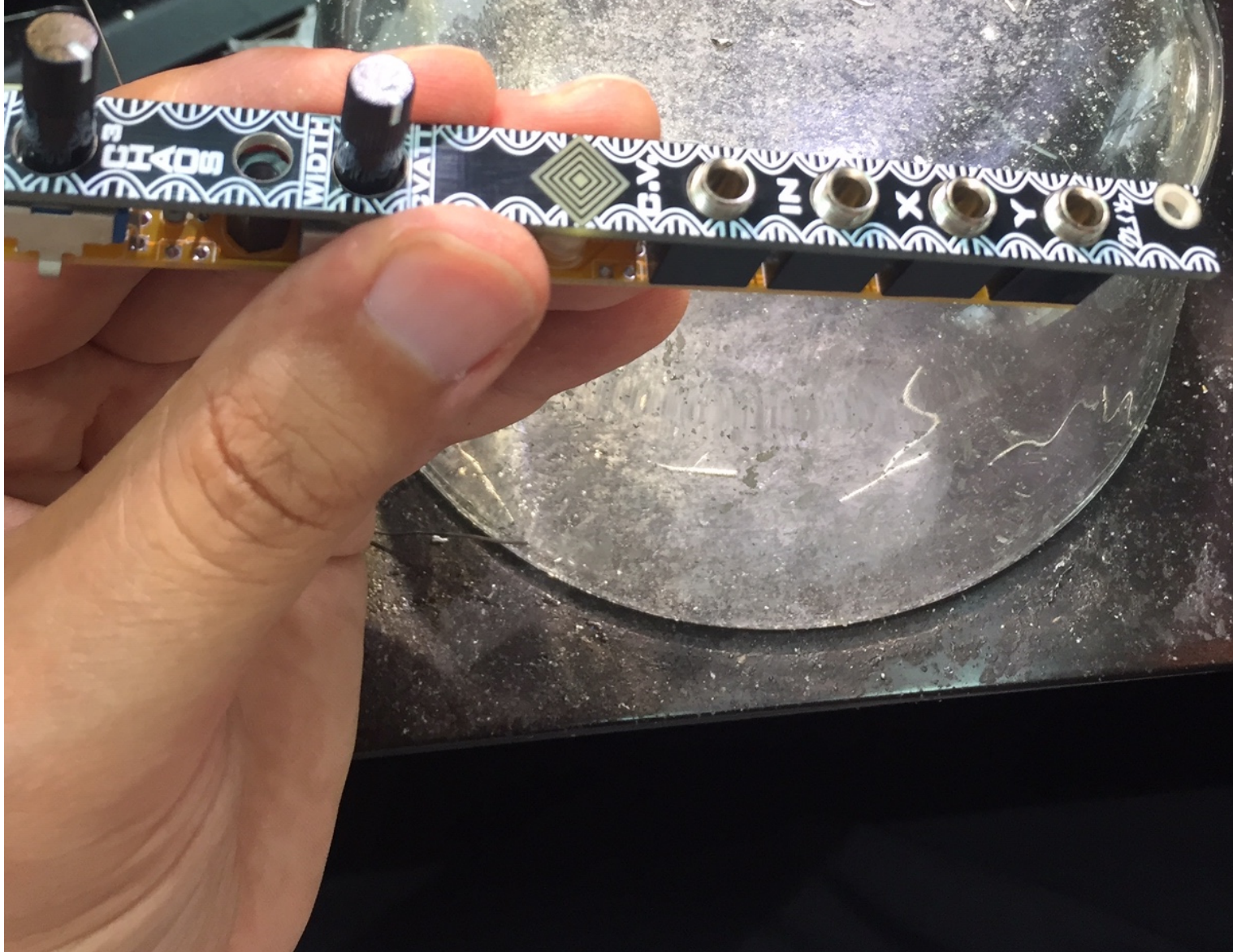
**INSERT THE POTS, LED, AND JACKS. DO NOT SOLDER YET. 10K GOES ON THE LEFT(TOP) AND 100K GOES ON THE RIGHT (BOTTOM). POLARITY IS IMPORTANT WITH THE LED, FLAT SIDE AND SHORT LEG FACE DOWN**



**THE LED IS ACTUALLY BIPOLAR THOUGH SO IF YOU WANT THE OUTPUT A LITTLE MORE BLUE(INVERTED) YOU CAN FLIP IT ALTHOUGH THIS MIGHT CAUSE DIFFERENT BEHAVIOR AND IS NOT FULLY TESTED**

A hand is holding a narrow PCB strip with various components. The strip has a decorative white pattern on a dark background. Components include two black cylindrical capacitors, a green square component, and several silver cylindrical components. The strip is being held over a clear plastic panel with a metal base. In the background, there is a yellow tray with bubble wrap and a blue tool with 'LED' written on it.

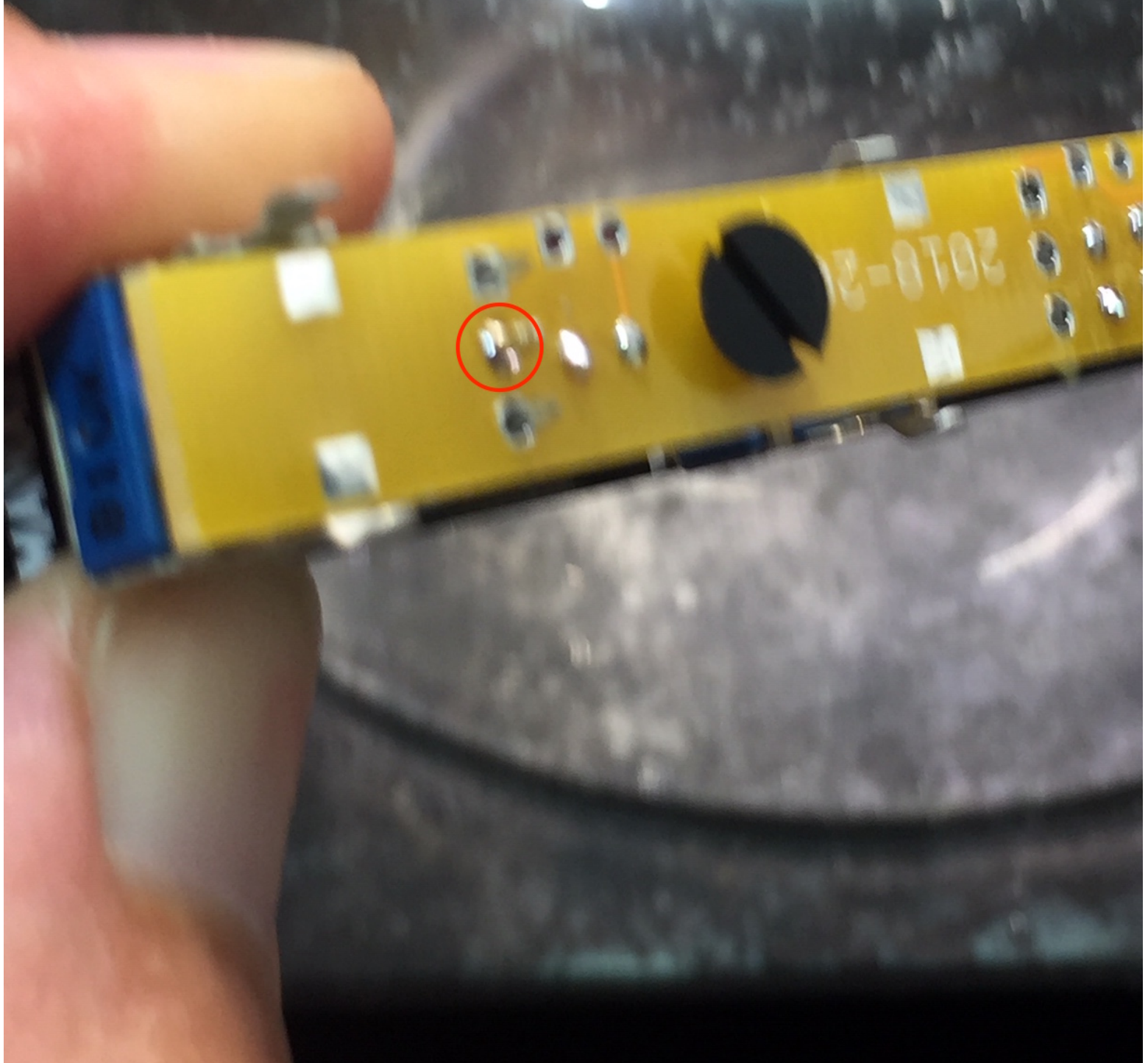
**PUT ON THE PANEL. MAKE SURE ALL  
COMPONENTS ARE FLUSH WITH THE PCB  
AND IN THEIR RESPECTIVE SLOTS**



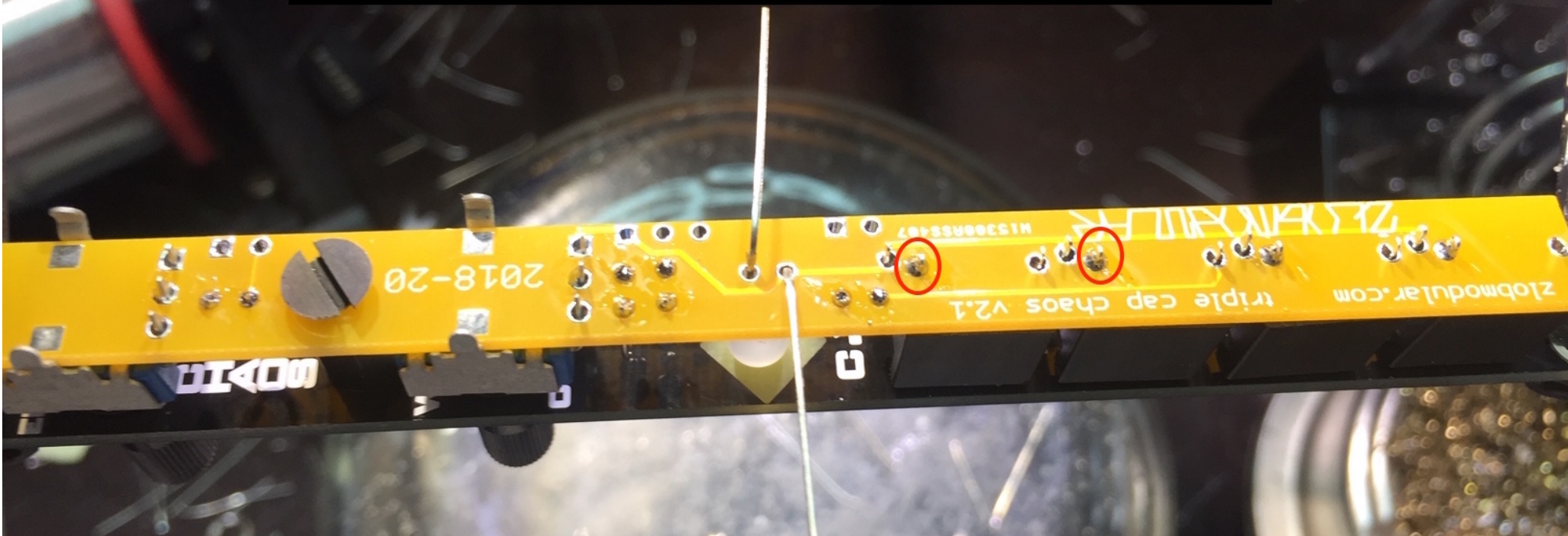
**PUT ON THE PHILLIPS  
SCREW AND JACK NUTS.  
DO NOT OVER TIGHTEN.  
MAKE SURE EVERYTHING IS  
FLUSH WITH THE PCB AND  
PANEL**



**SORRY BLURRY PIC. IT'S HARD TO  
SHOW IN A PICTURE. BUT I LIKE  
TO HOLD THE POT FLUSH  
AGAINST THE PCB AND TACK THE  
MIDDLE PIN TO HOLD IN PLACE**

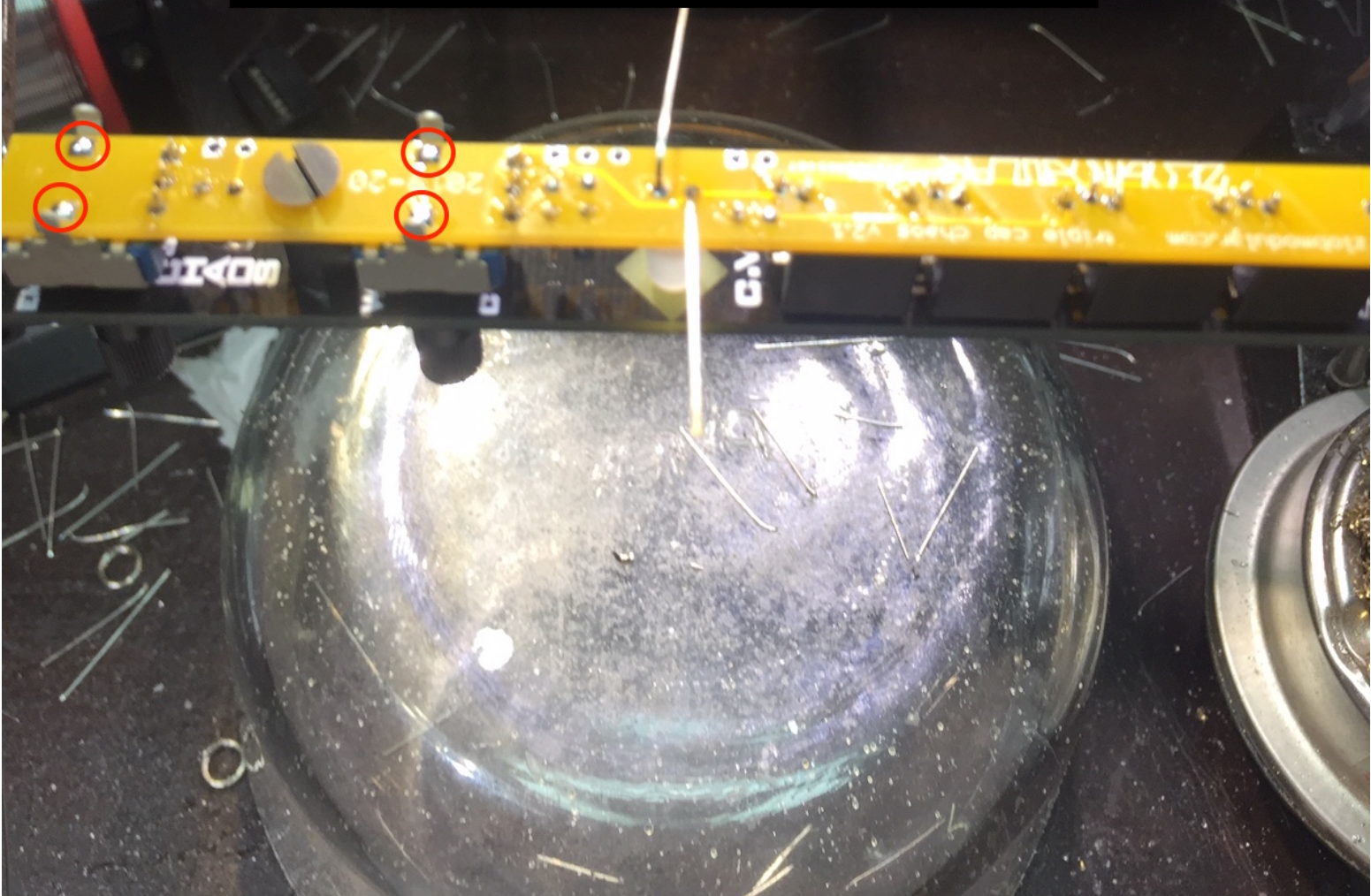


I ALSO LIKE TO TACK ALL THE SWITCH PINS OF THE JACKS TO HOLD IN PLACE. MAKE SURE EVERYTHING IS FLUSH WITH THE PANEL AND PCB BEFORE DOING SO.



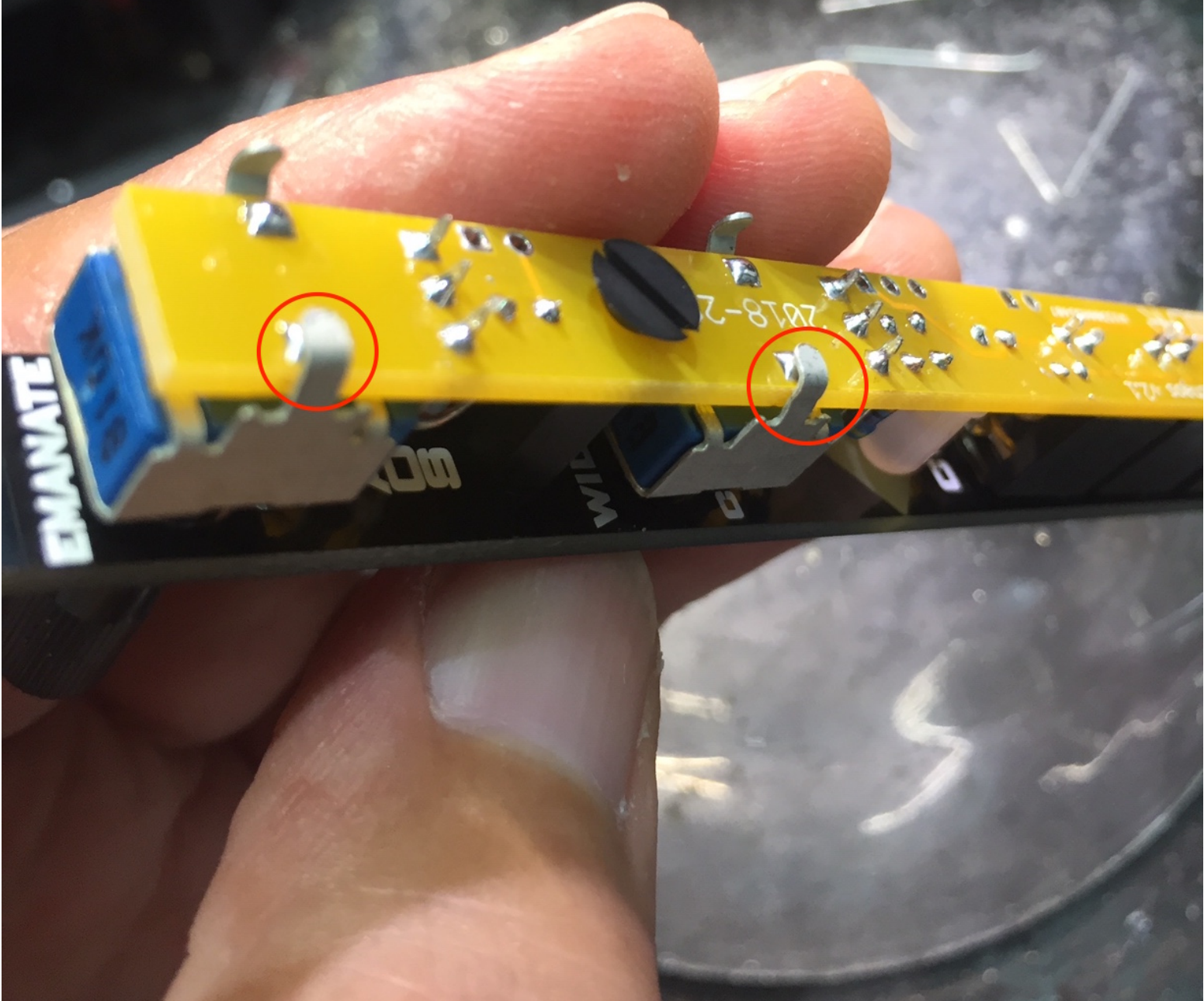
ALSO MAKE SURE THE LED IS SITTING UP AGAINST THE SOLDERMASK WINDOW. BUT NOT PUSHING DOWN ON THE PANEL

**SORRY ANOTHER  
BLURRY ONE. SOLDER  
THE REST OF THE  
JOINTS. MAKE SURE THE  
POTS ARE SITTING  
SYMMETRICALLY  
WITHING THE PANEL  
HOLE. AND PUT SOME  
SOLDER ON THE PADS  
FOR THE POT CHASSIS**





**BEND THE CHASSIS  
PIN TOWARD THE PAD**

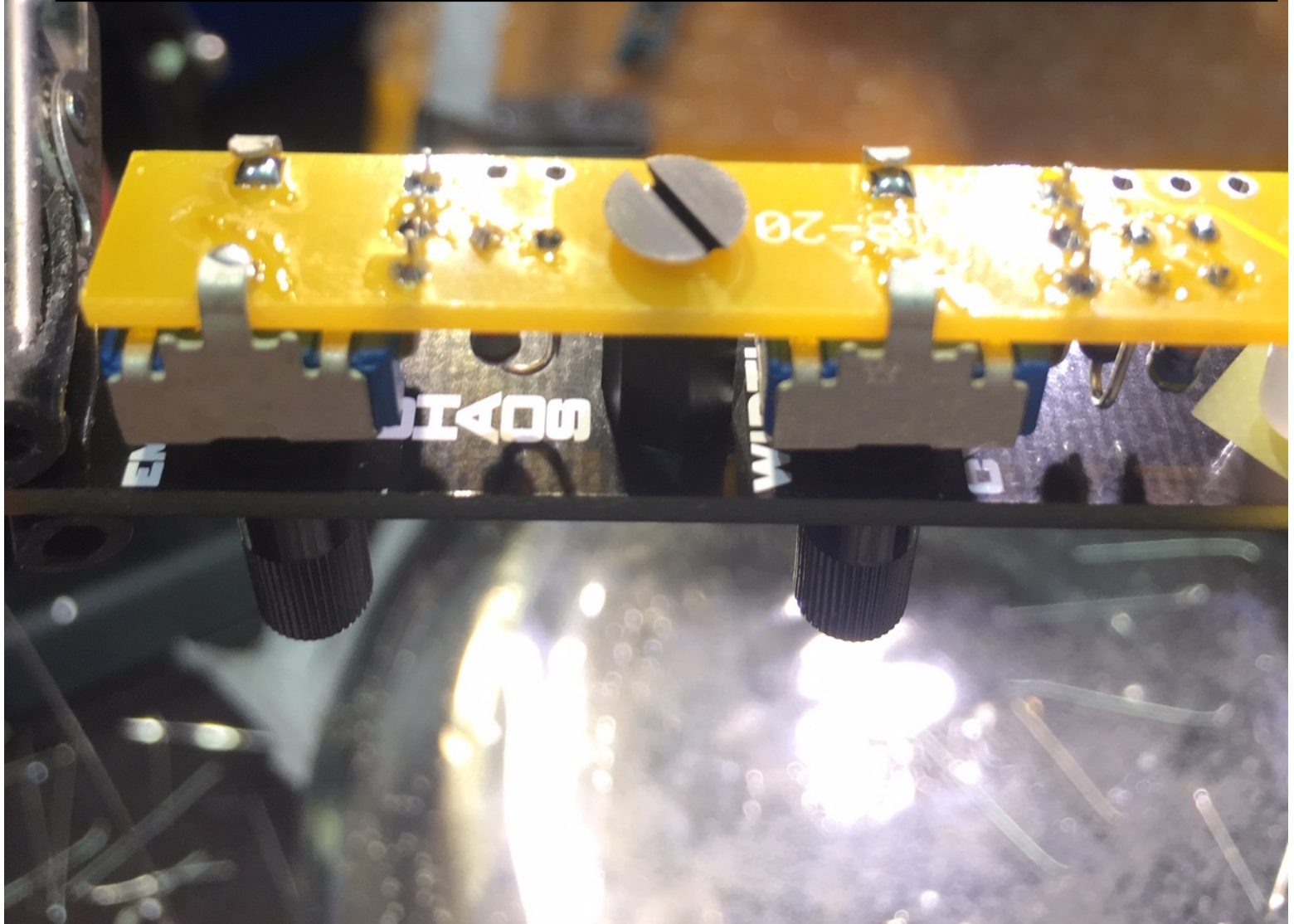


IT HELPS TO ALSO  
BEND THE SIDES IN  
SO THE CHASSIS  
DONT STICK OUT  
BEYOND 2HP





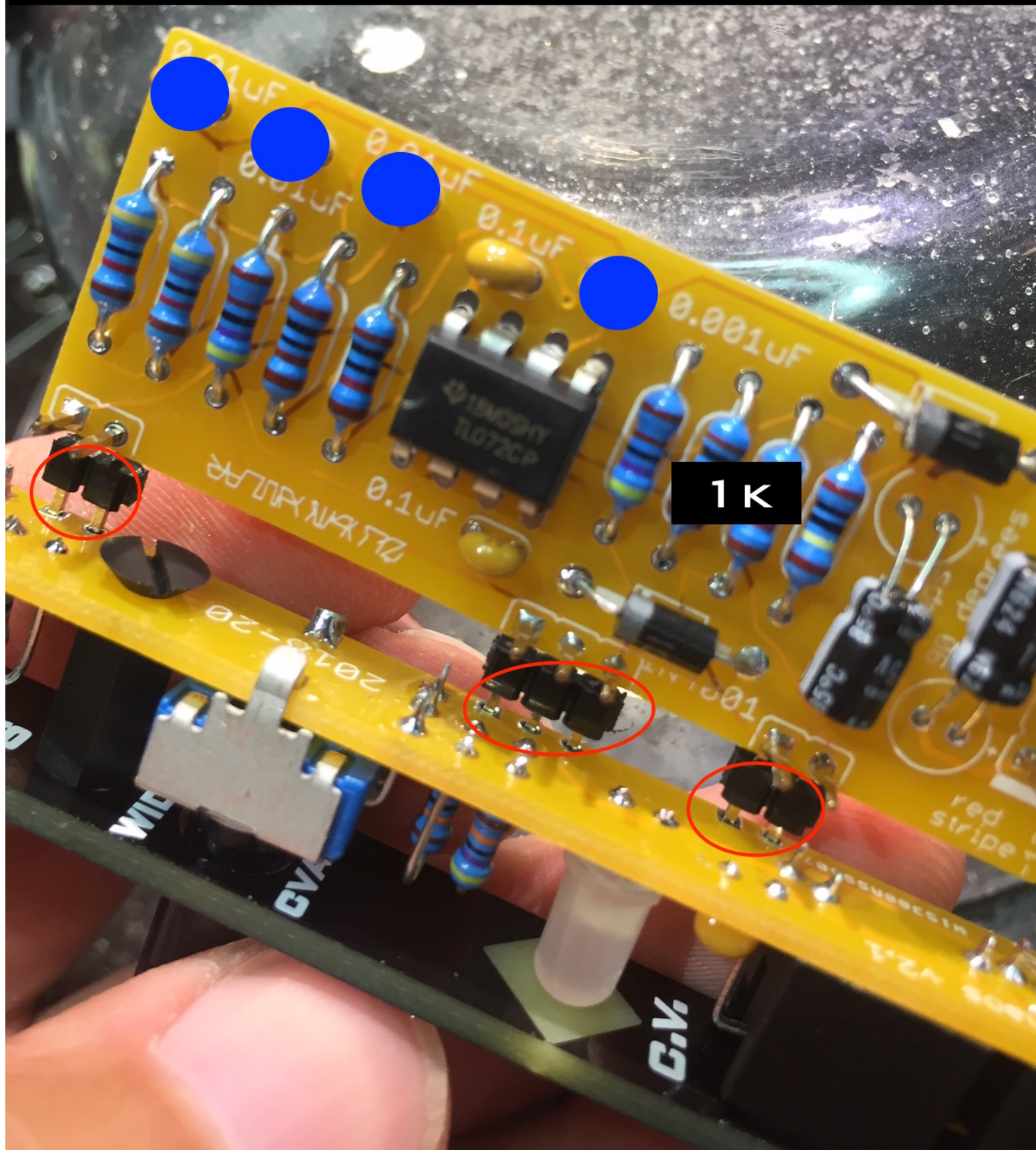
**BEND THE OTHER SIDES FOLLOWING  
THE SAME STEPS**



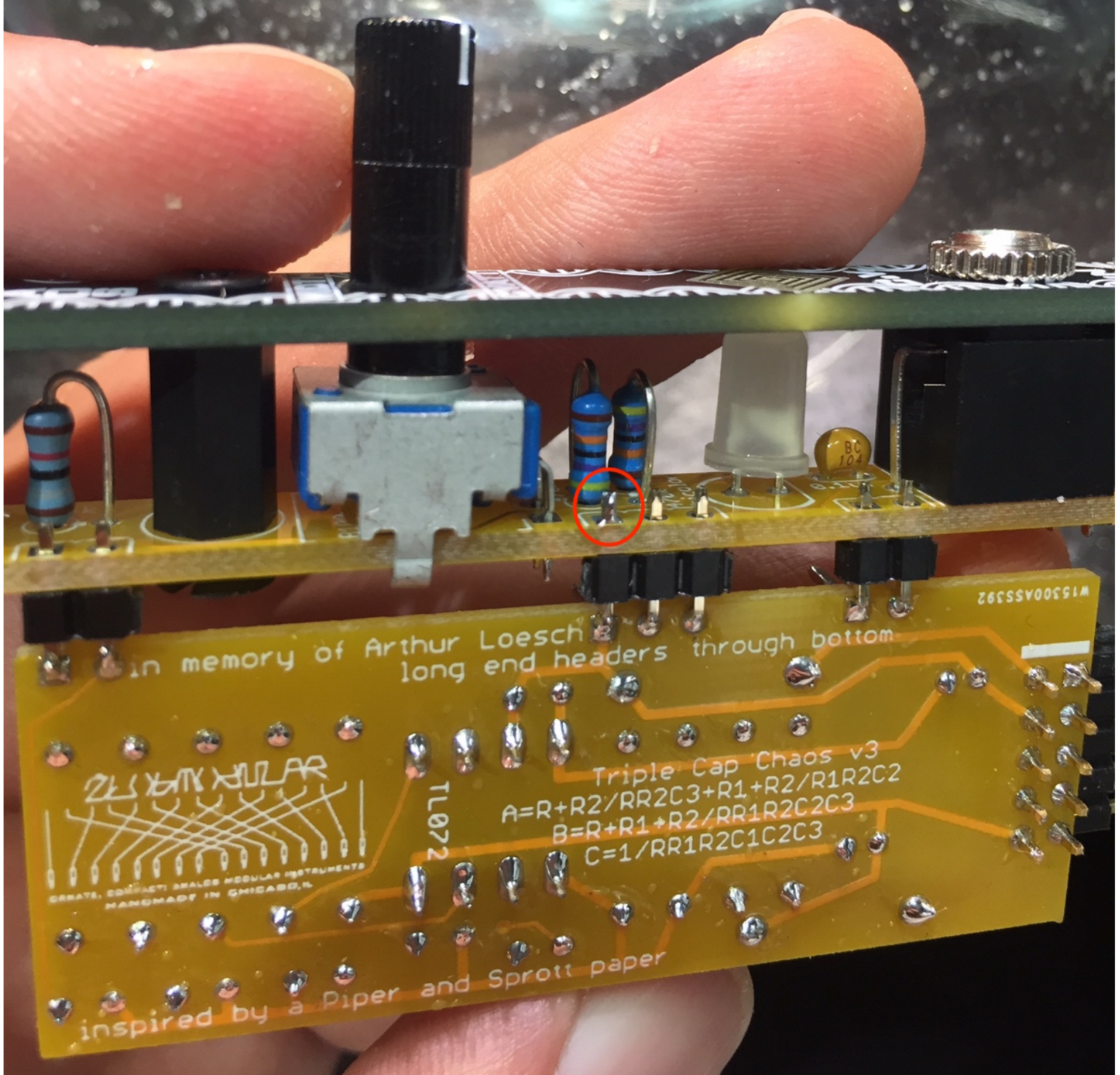
**SOLDER POTS IN PLACE**



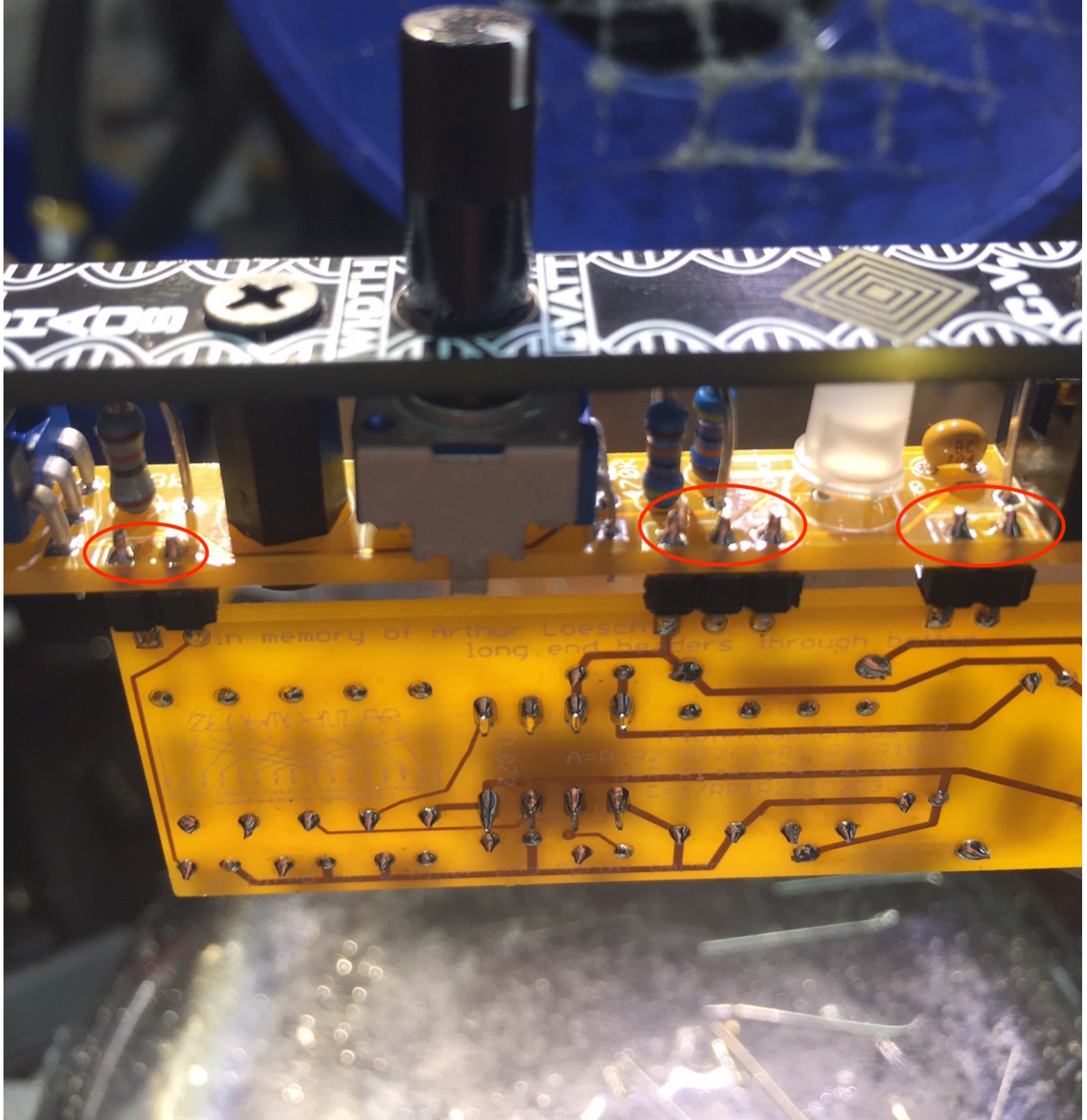
INSERT THE MOTHERBOARD INTO THE  
TOP PCB. DONT GET CONFUSED THE  
MOTHERBOARD IS AN OLDER VERSION  
WITH DIFFERENT CAPS/VALUES



MAKE SURE THE MOTHERBOARD IS FLUSH WITH THE TOP PCB. TACK ONE OF THE HEADERS TO THE TOP PCB TO HOLD IN PLACE.



**SOLDER THE REST OF THE HEADERS.  
MAKE SURE THEY ARE SOLDERED  
WELL.**





EM

CHAOS

WIDTH

CVATT

C.V.

IN

X

Y

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