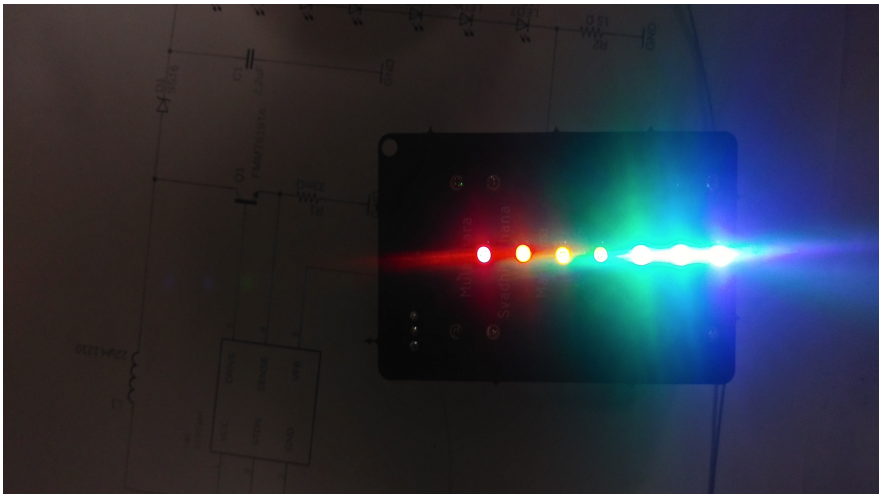
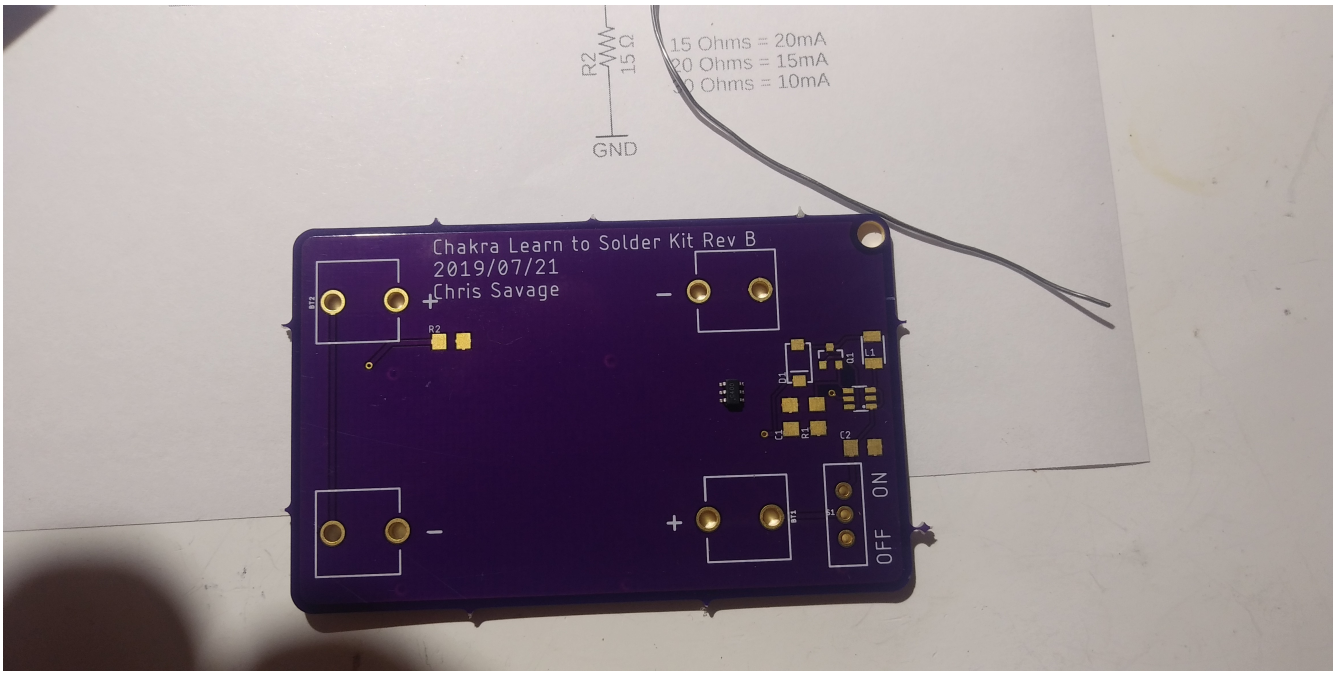
Chakra Starter Kit Assembly Instructions



Part	Value	DigikeyPN
BT1,BT2	AA Battery Connector	BK-92-ND
C1,C2	2.2uF	1276-1072-1-ND
D1	B340A	SS16FSCT-ND
L1	22uH,1210	587-6397-1-ND
LED1	RED	475-1180-1-ND
LED2	ORANGE	475-2745-1-ND
LED3	YELLOW	475-2798-1-ND
LED4	GREEN	475-3119-1-ND
LED5	BLUE-GREEN	846-1188-1-ND
LED6	BLUE	754-2175-1-ND
LED7	VIOLET	754-1535-1-ND
Q1	FMMT619CT	FMMT619CT-ND
R1	33mOhms	408-1576-1-ND
R2	15Ohms	311-15.0FRCT-ND
S1	SPDT Switch	EG1903-ND
U1	ZXSC400	ZXSC400E6TACT-ND



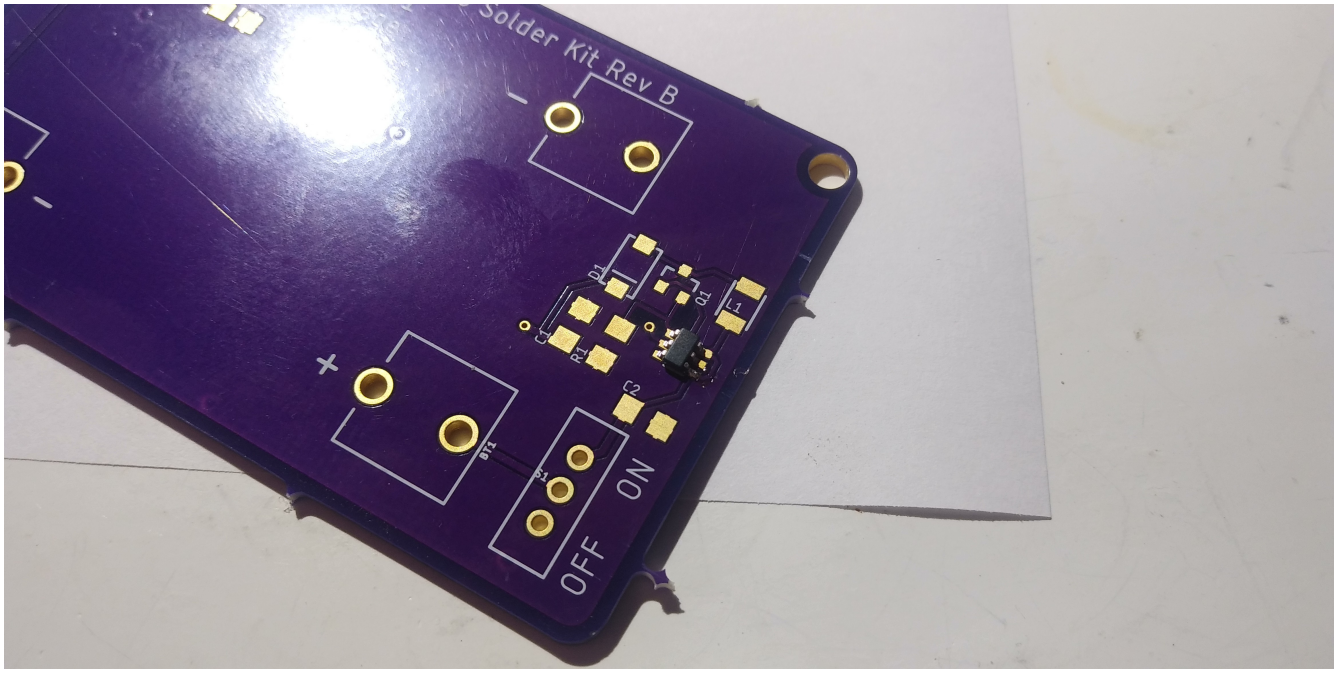
Step 1) Open the package containing the ZXSC400 IC. Be sure not to lose it as it is small.

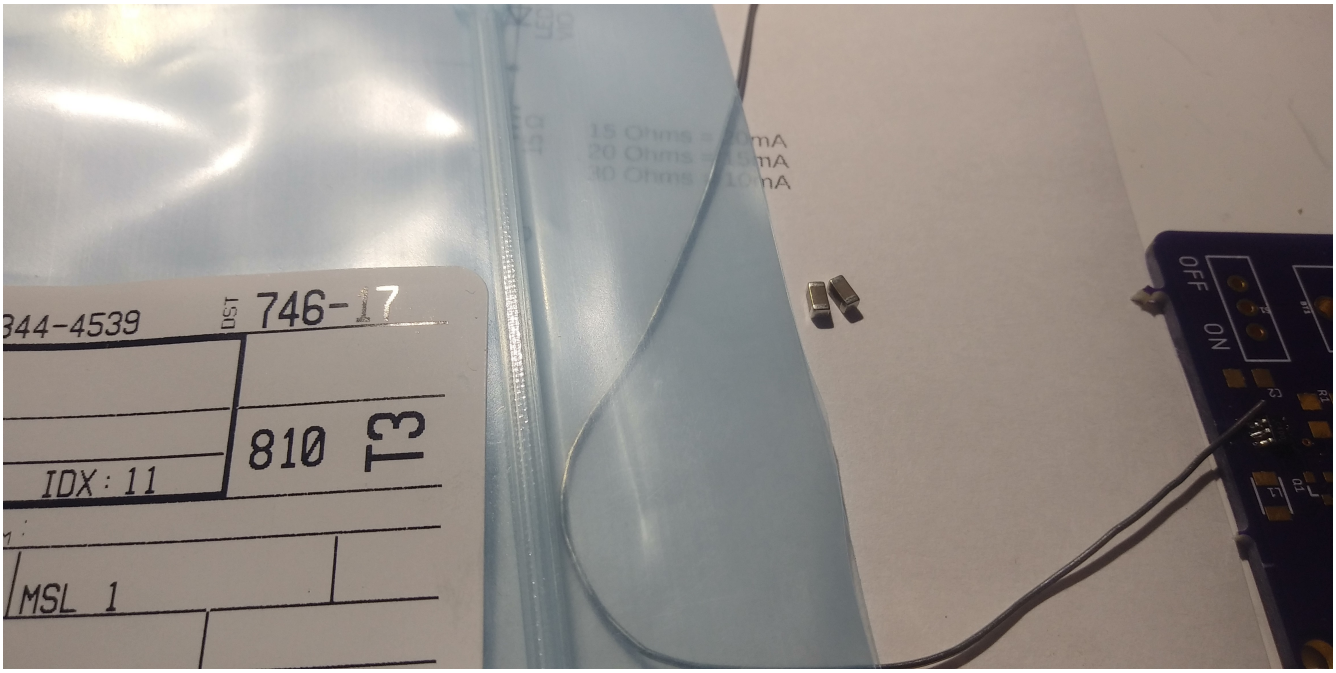
Step 2) Align the dot on the package with the Dot on the schematic. This is pin 1.

Step 3) Using a very small amount of solder, fill the pad on pin 1 with enough solder but do not let it overflow.

Step 4) Using tweezers, move the IC into position. Apply gentle heat on the pad you just filled with solder and move the IC into place. Be careful to align all pins!

Step 5)Solder the rest of the pins. My advice is to solder the ones in the middle first and then move outwards. Be wary of bridges!

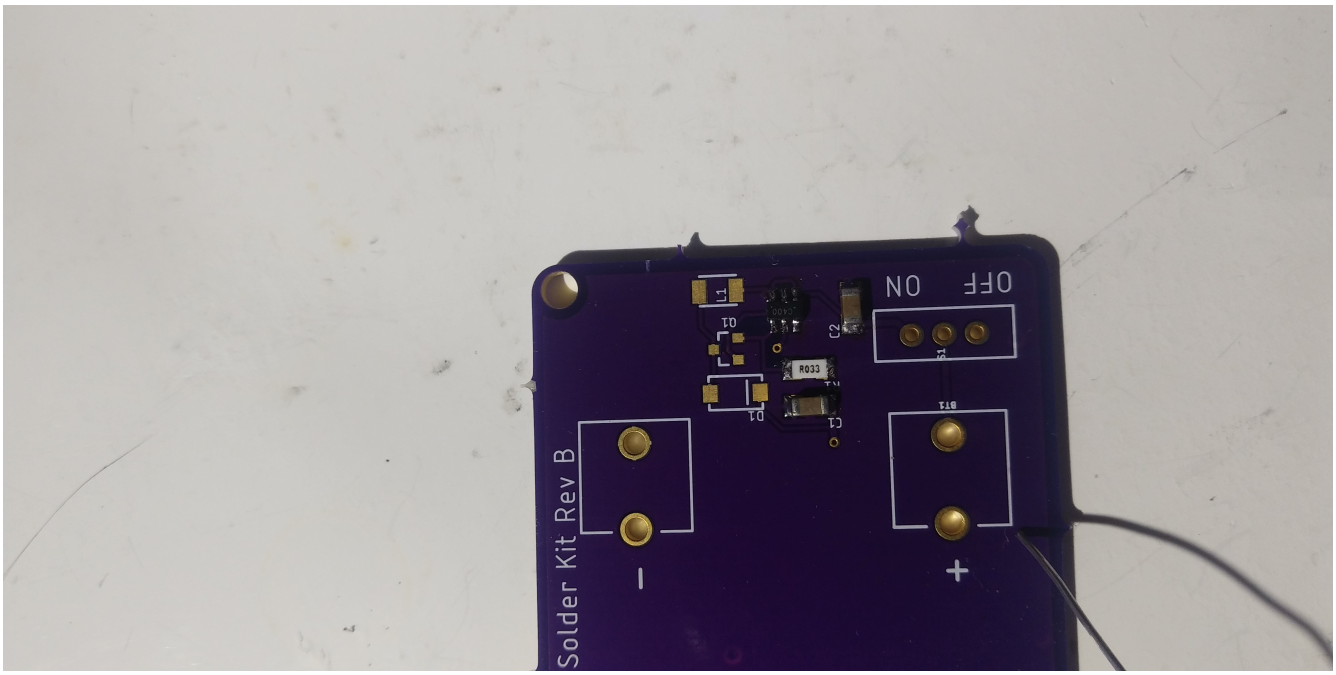

Solder Kit Rev B
+
-
OFF
ON
D1
R1
R2
C1
C2
Q1
F1



You may Now solder C1,C2. These are not polarized. Solder in the same way as you did the IC.

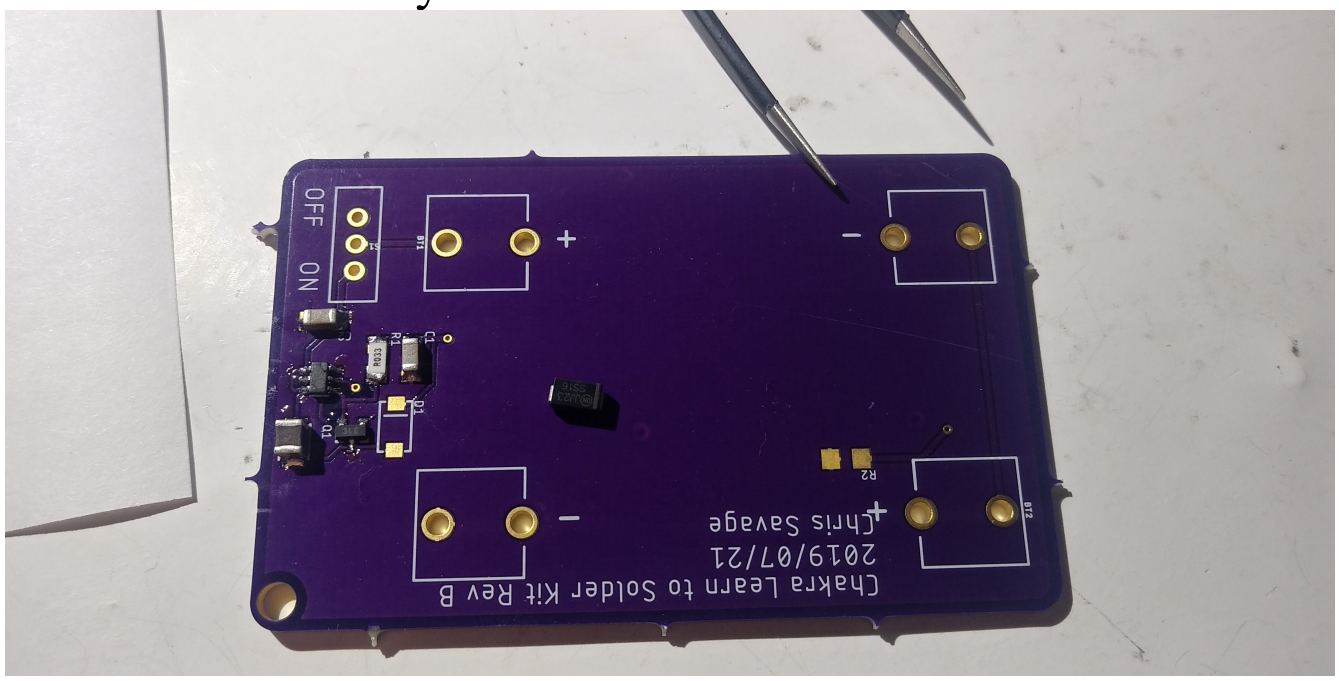
You may Now solder R1. Solder in the same way as you did the IC.

Board should look like this:

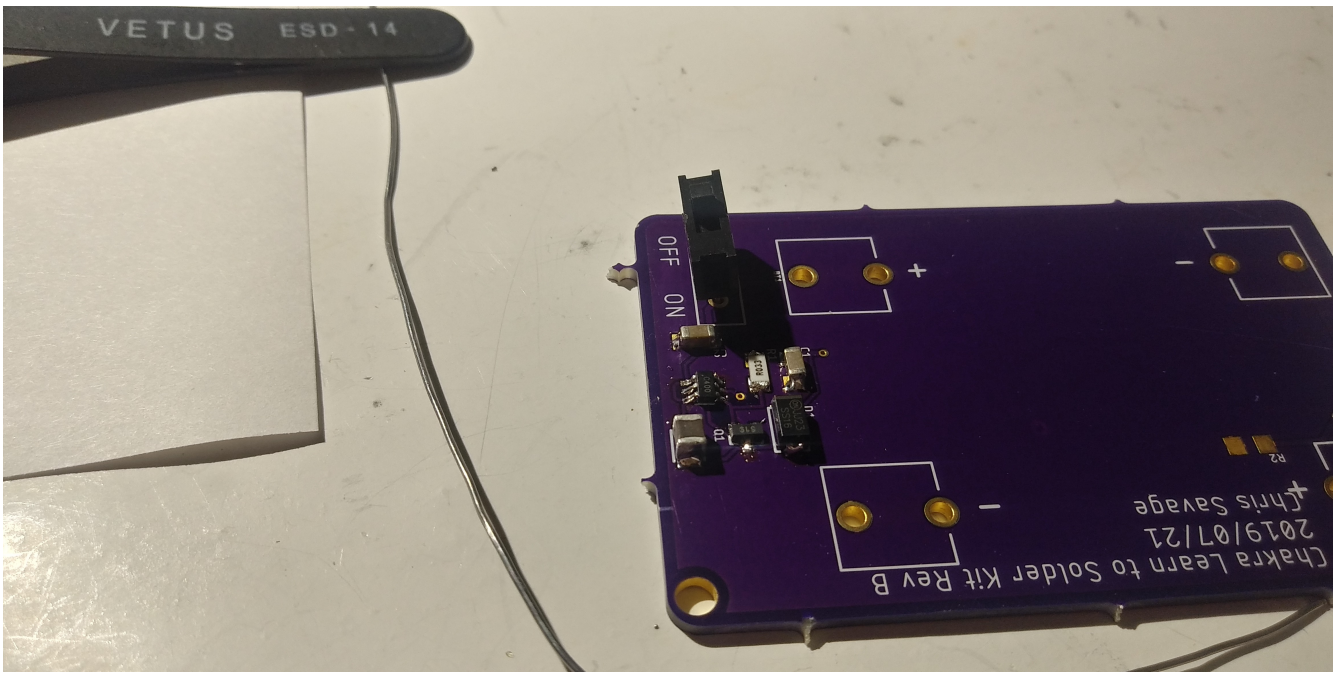


Solder the rest of the components with the exception of D1,

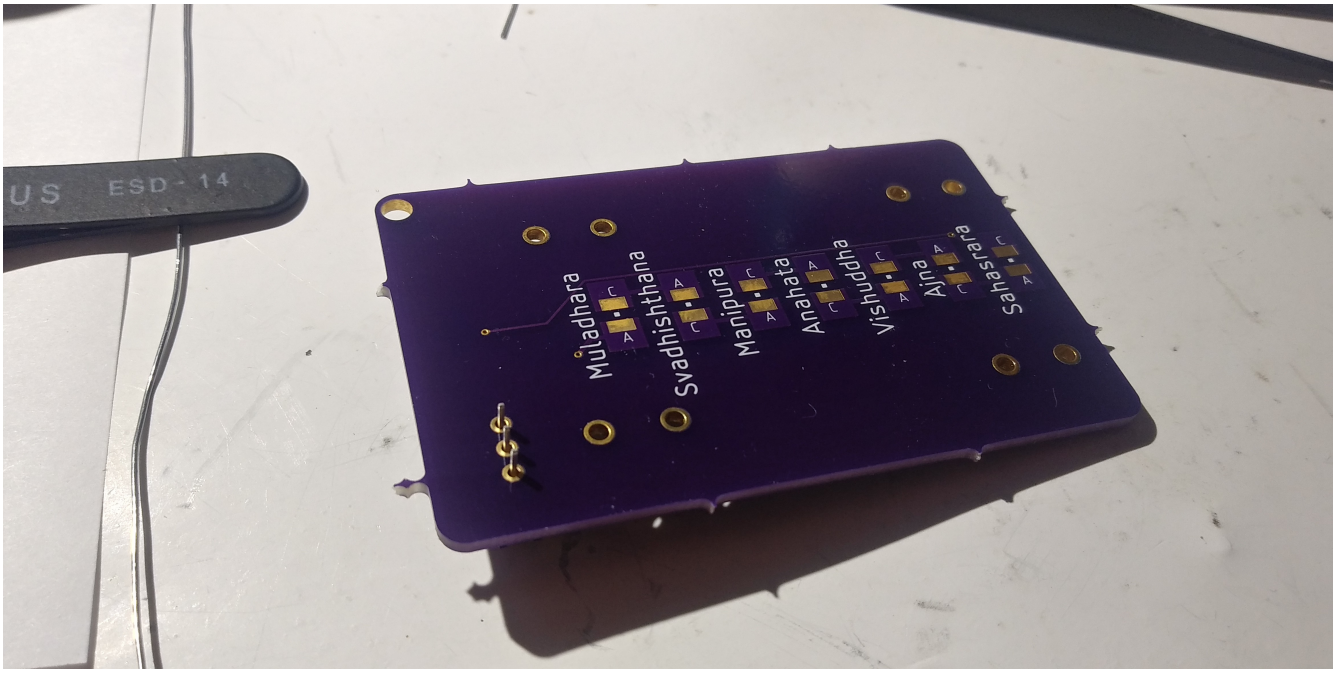
SW1 and the battery connectors.



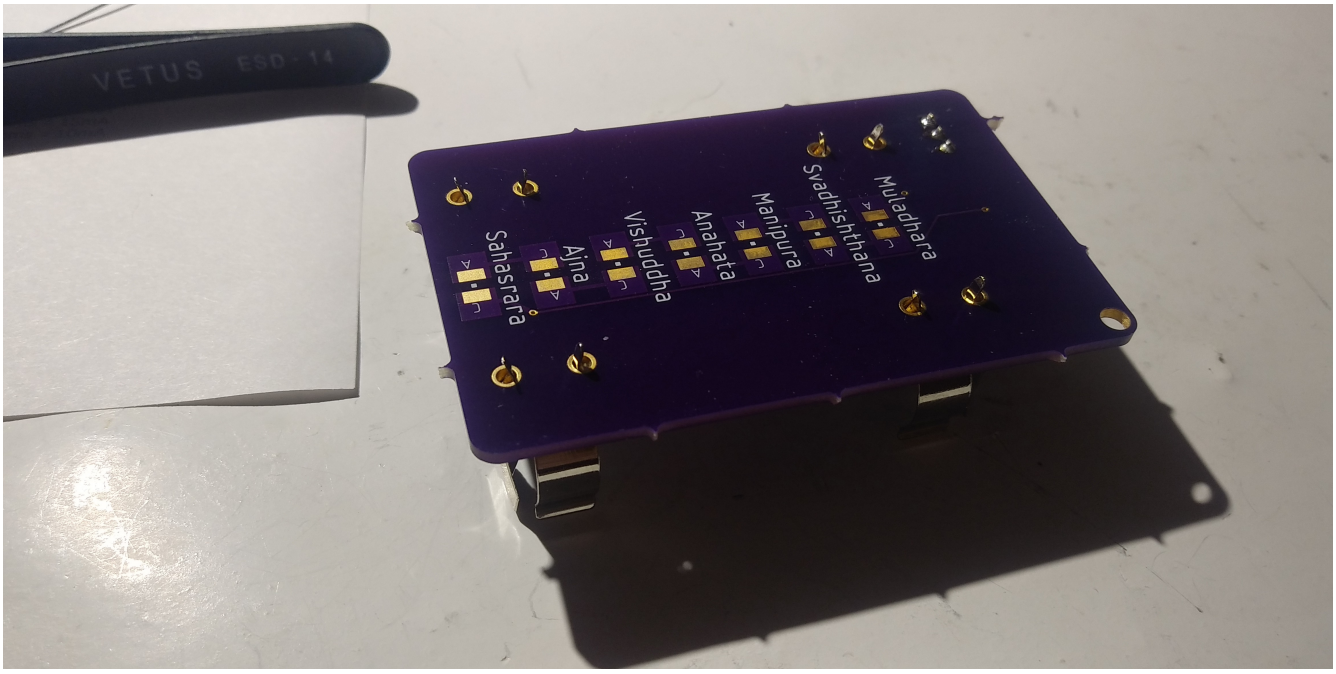
As far as D1 goes, be sure to observe the polarization mark on D1. Just make sure it matches up with the board.



Insert SW1 But dont solder it just yet.

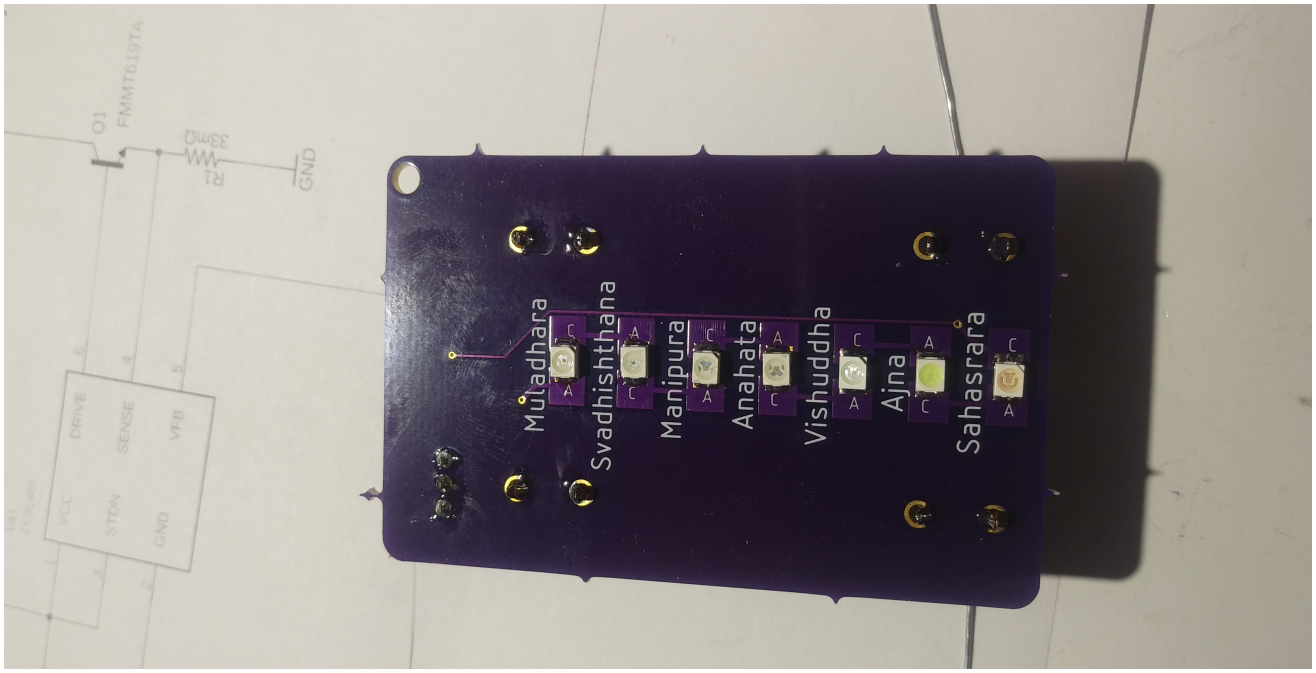


Turn the board over and solder. Trim once finished.

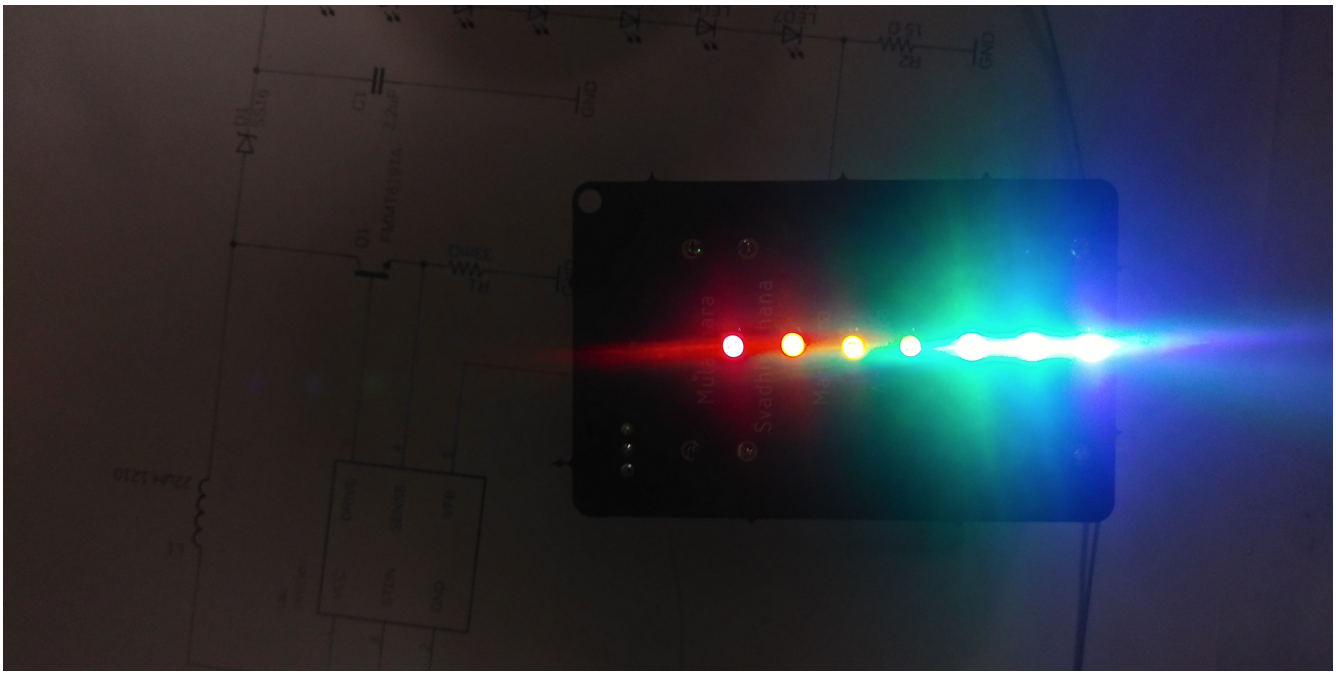


Insert the battery connectors and turn the board over. Now you can solder these. Make sure they are properly aligned so you can insert a battery.

Now as far as the LED's go, make sure that the little polarization mark matches the “C” on the board (Cathode, or negative). The polarization mark for the LEDs is a little cut in the corner. Do not spend too much time with your soldering iron on the LEDs or the heat may harm them.



Once finished, double check your work! Make sure the switch is “OFF” and then insert batteries. Once you insert batteries, apply power by turning the switch to the On position and it should look like....



NOTE: Do not forget about R2. You can adjust the final brightness with this resistor. A lower resistor will use more power while being brighter (15 Ohms being the lowest). A higher resistor will be less brighter (some colors might not show as equal) but save more power.