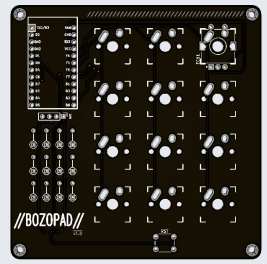
//BOZOPAD//

BUILD GUIDE

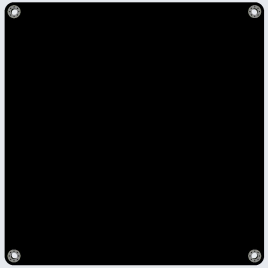
BY TYLER WONG AND VU TRUONG

Parts List

1x //BOZOPAD// PCB



1x Backplate

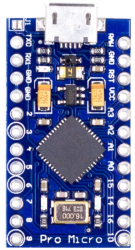


12x Diodes

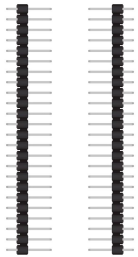
11*/12x Switches

11*/12x Keycaps

1x Pro-micro MCU



2x Guide rails



1x OLED Screen

4x SMD LEDs

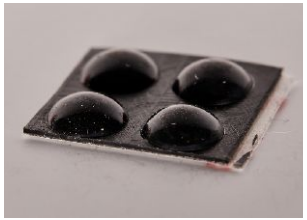
1x Reset Button

8x M2 Screws

4x M2 Standoffs

1x Midlayer

4x Rubber feet



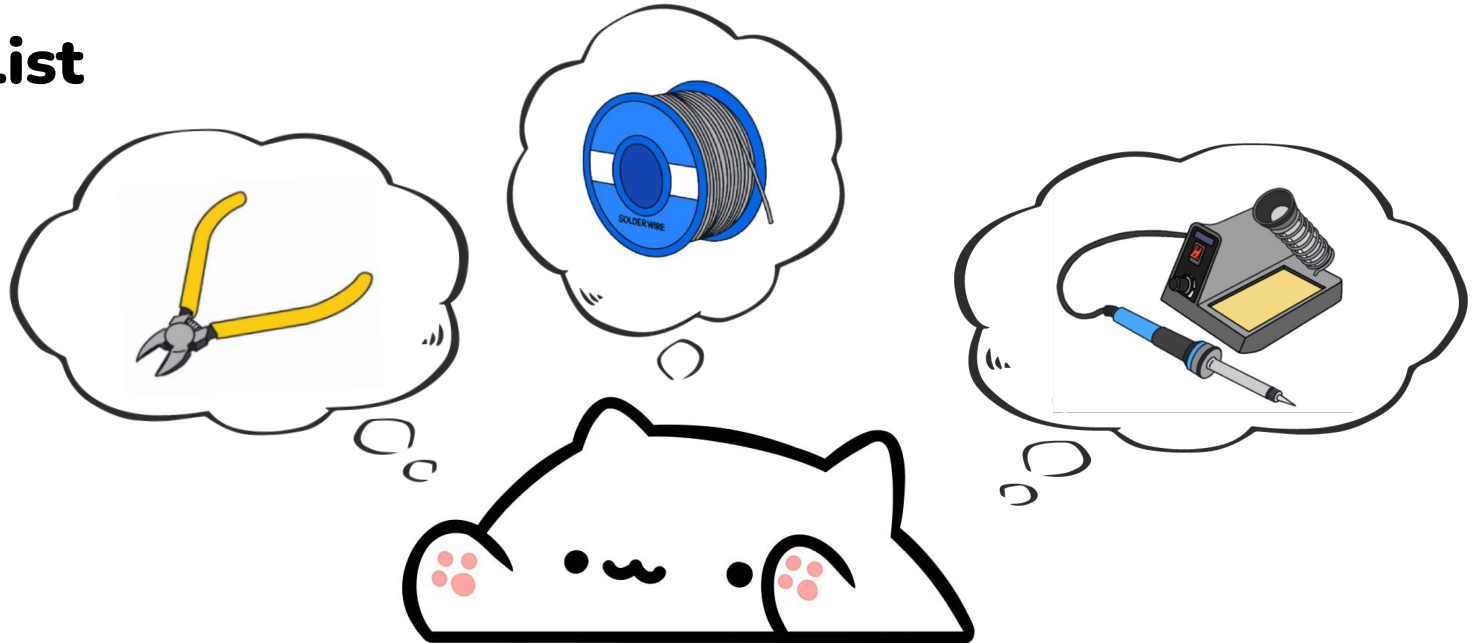
1x Rotary Encoder*

Parts List (continued)

1x Knob*

Key
*Components and the amount only apply for those who choose to build with a rotary encoder.

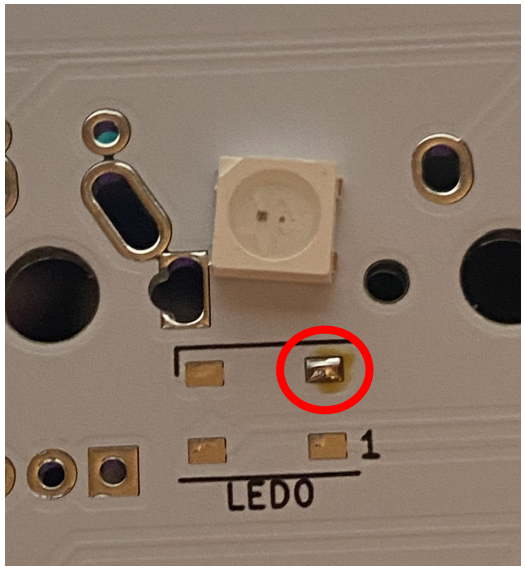
Tools List



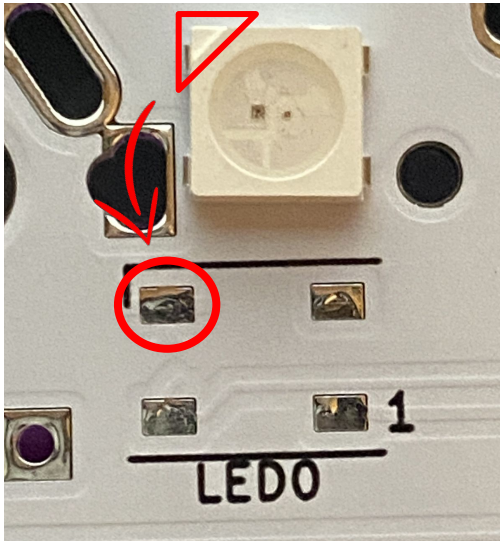
SMD LED Assembly(*optional)

Skip to the next page if you are not planning to have RGB Underglow

(1) On the bottom side of PCB, insert a tiny bit of solder into any one corner of each of the LED pads.



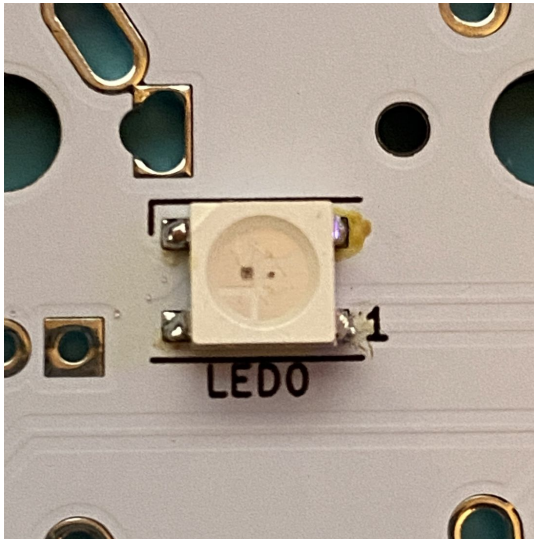
(2) Place a SMD LED with the corner that has a small triangle on the top left corner of the LED pads.



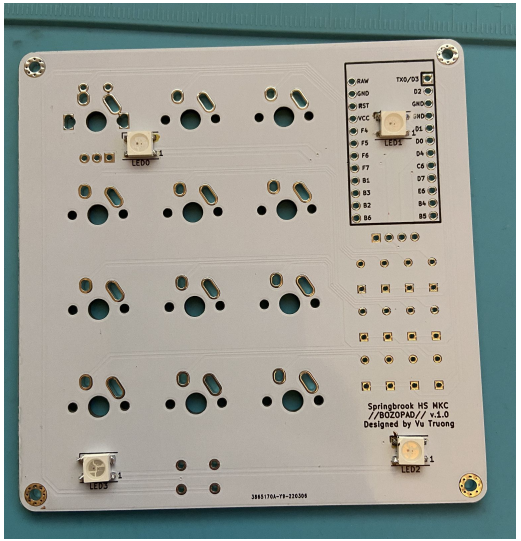
SMD LED Assembly(*optional) (continued)

Skip to the next page if you are not planning to have RGB Underglow

(3) While holding the LED, reheat solder to the corner of the LED. Solder the 3 remaining pads of the LED.

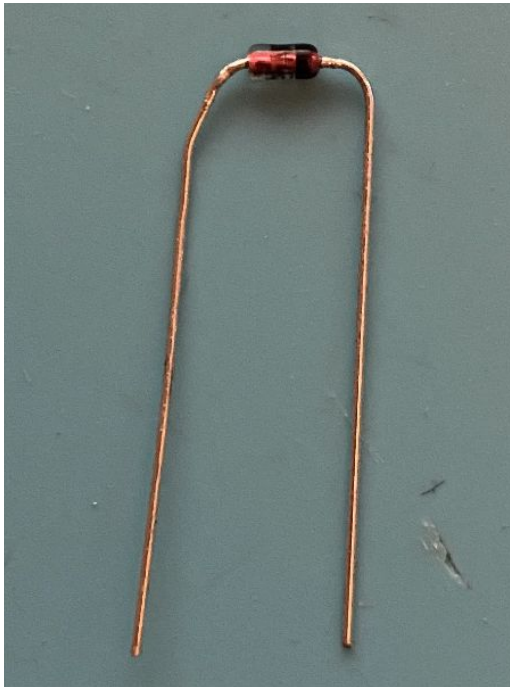


(4) Repeat steps 1-3 until the remaining 3 LEDs are soldered.



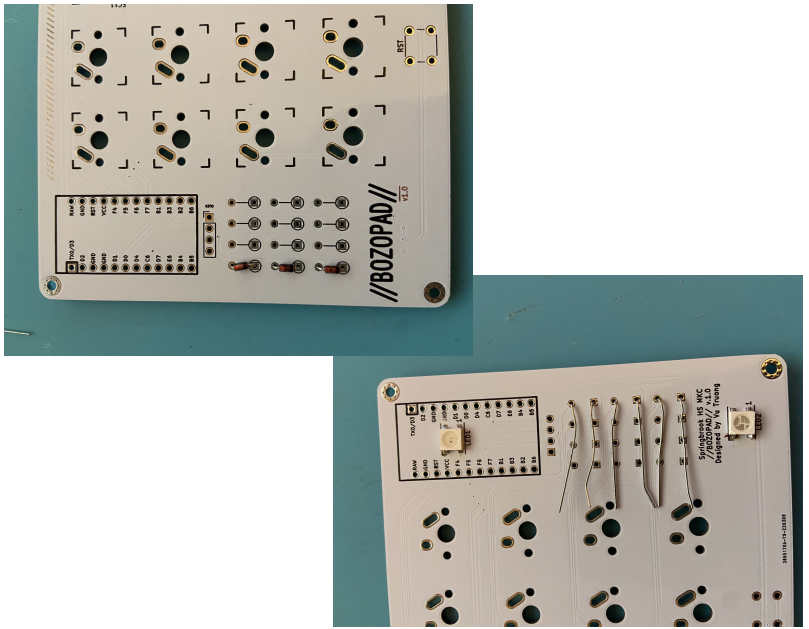
1) **Diodes**

Bend both legs of all diodes 90° to fit into the diodes slots (bottom left) of the PCB.



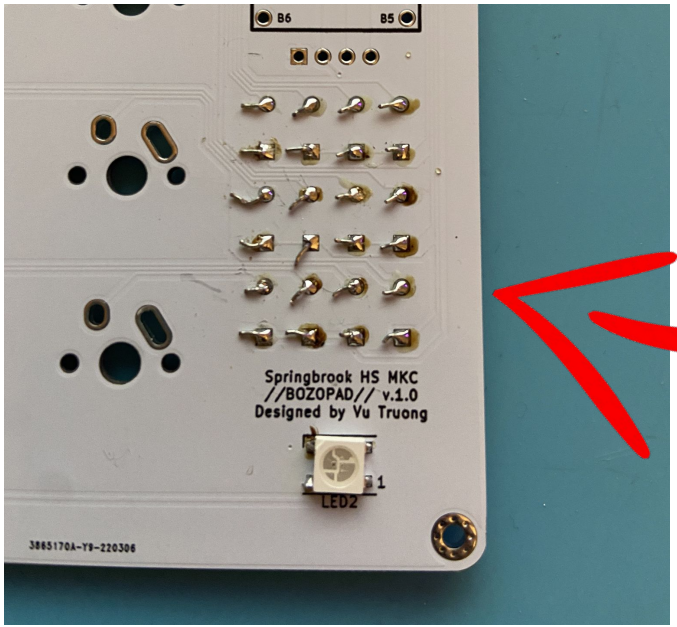
2

Insert 3 diodes into 3 slots in the top side of PCB. Make sure the black line is facing downwards and that they are as far in the slot as possible, then bend the legs parallel with the PCB to keep them in place.



3

FLIP. Solder each leg to their metal parts (pads) on the bottom side of PCB. Clip excess length of the legs with a wire cutter.



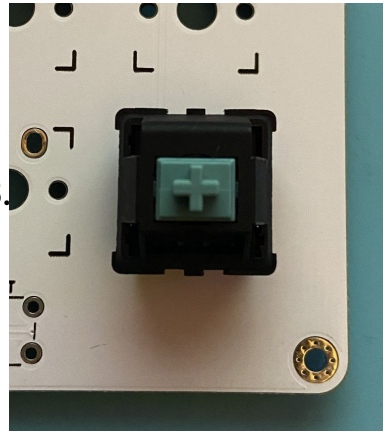
4

Repeat steps 2-3 until all 12 diodes are soldered into the PCB and all legs have been clipped.

Result should looks like this

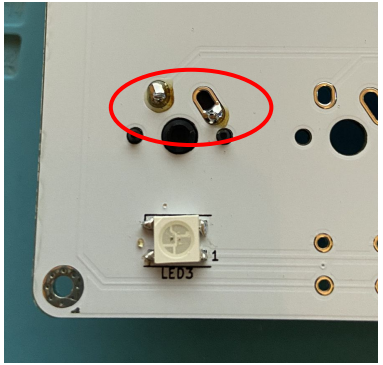
5) **Switches**

Insert switch into the corresponding hole(s) in the top side of the PCB.



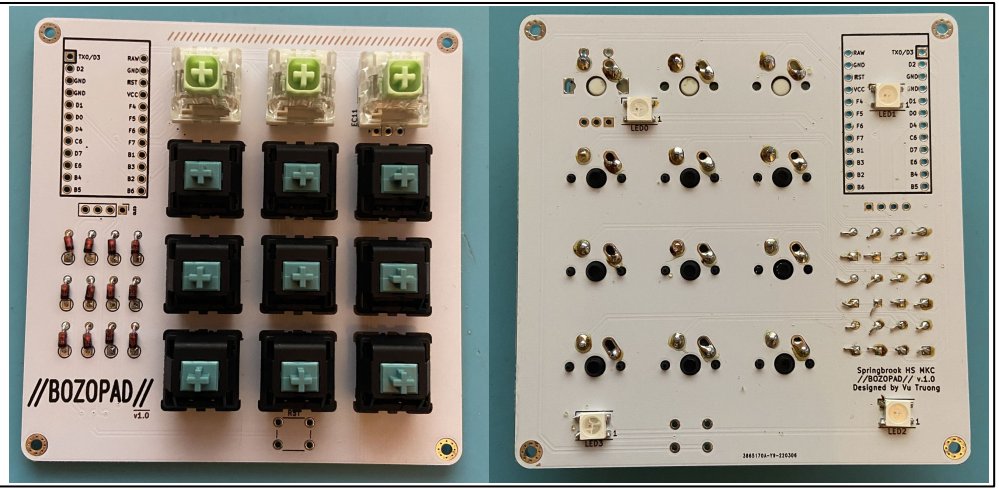
6

FLIP. Solder the 2 metal pins of the switch onto their pads on the bottom side of the PCB.



7

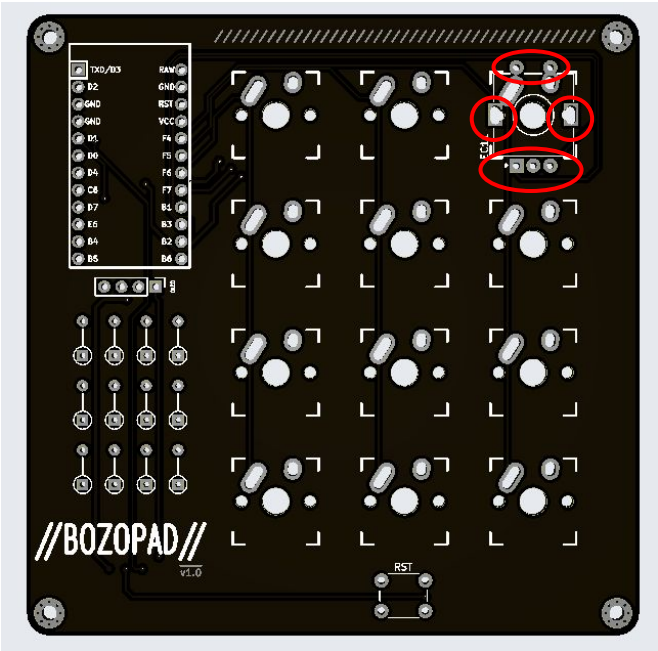
Repeat steps 5-6 until all 12 switches have been soldered onto the PCB.

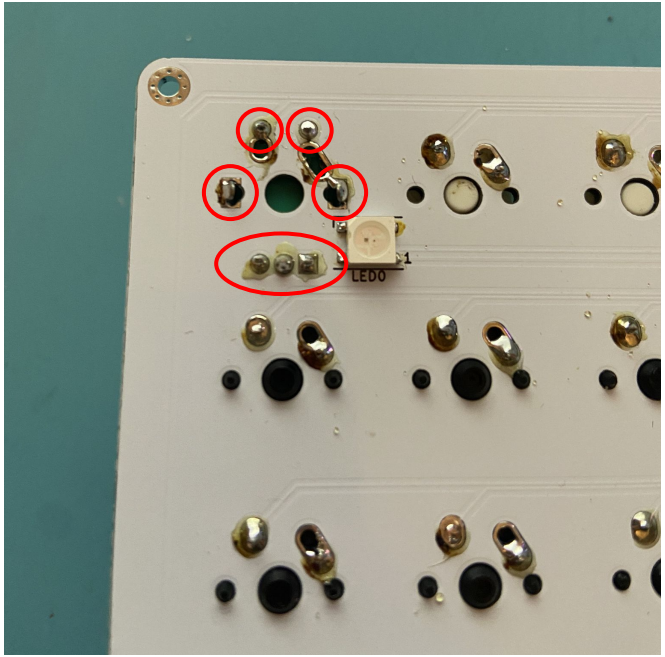


8) **Rotary Encoder** (*skip if you don't have one)

Insert rotary encoder into the corresponding slots in the top right corner. Flip. Solder all pins from the bottom.

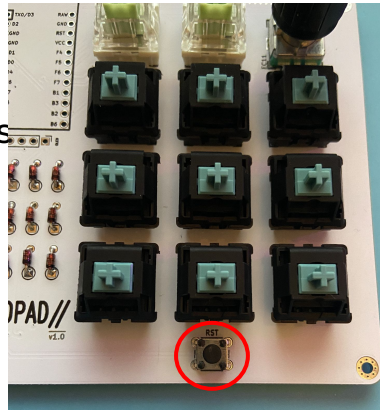
Place the knob on top. While pushing the knob down, tighten the screw on the side.





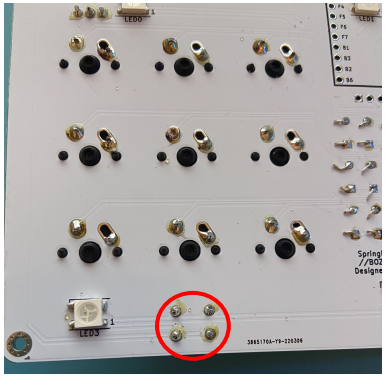
9) **Reset Switch**

On the top side, put the reset switch into the holes at the bottom of the PCB. It should pop in and not come out. Orientation does not matter.



10

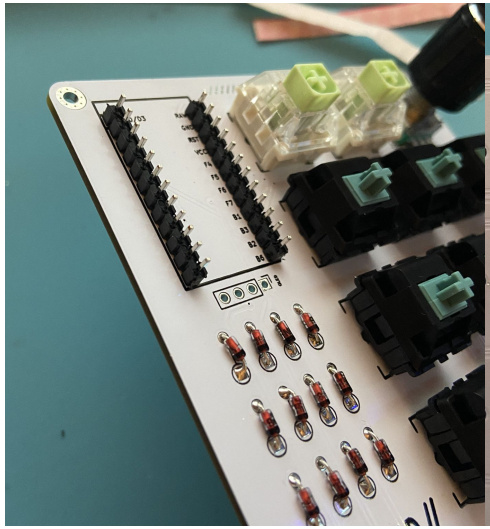
FLIP. Solder the 4 metal legs to their pads on the bottom side of the PCB.

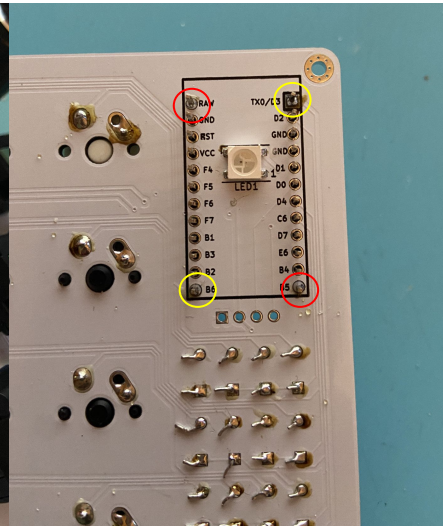


11) **MCU**

Insert the long sides of these guide rails into the holes from the top side of the PCB (top left).

FLIP. Solder corners pins in a criss-cross pattern. Make sure the guide rails are sitting flat to the PCB. Then solder the rest of the pins.





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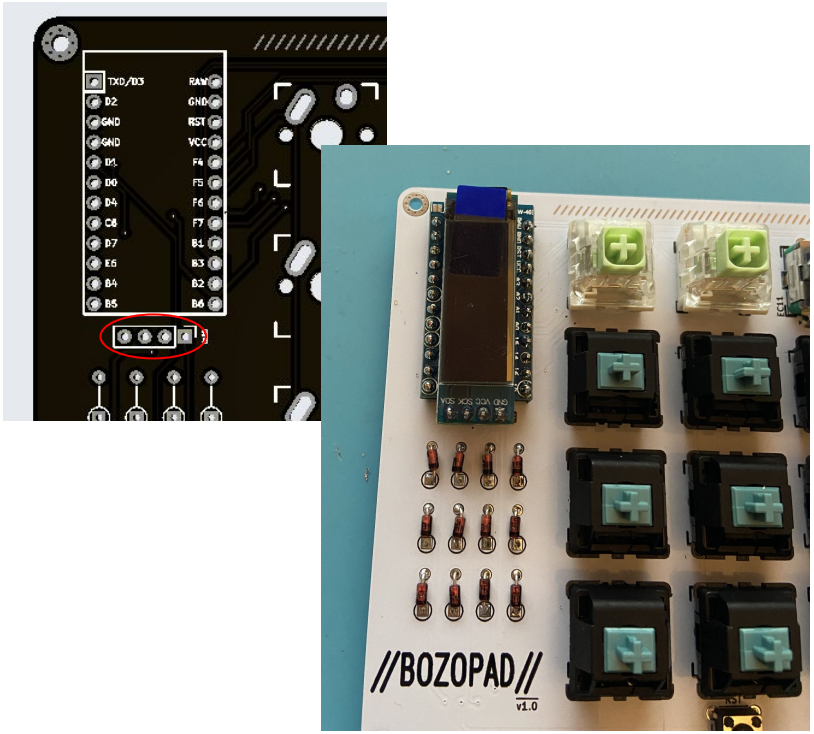
On the top side, place MCU on top of guide rails with the USB port facing outwards and on top.

Making sure that everything is flush (flat) to the guide rails, solder all top pins of the guide rails to pads on MCU.

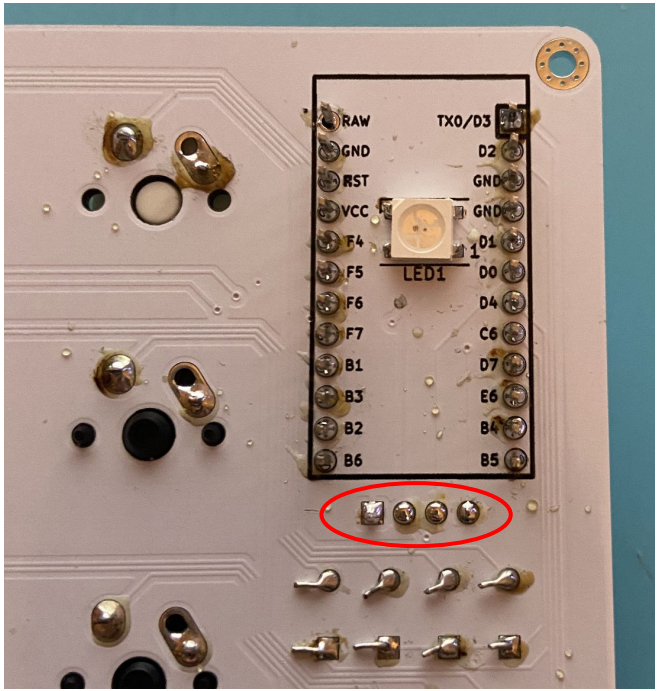
13 **OLED**

Place OLED on top of the MCU, inserting its pins into the 4 slots in the PCB directly under the MCU.



14)

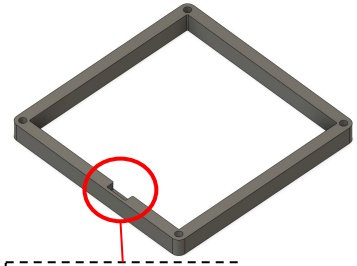
FLIP. Pushing the OLED into the MCU, solder the pins to their pads from the bottom side of the PCB.



15) **Final Assembly**

Sandwich midlayer between the PCB and the bottom plate. Place 4 standoffs through the holes in the corners.

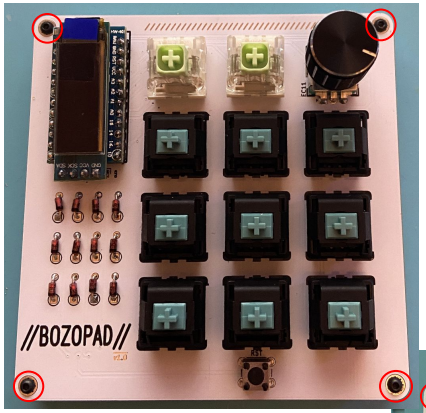
- There is only one orientation for the midlayer, the space lining up with the reset switch.
- Orientation does not matter for the bottom plate.

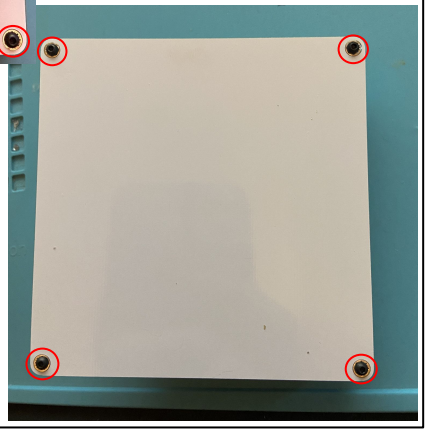


Line this up with the reset switch

16

Screw in the screws from both the top and bottom sides of the macropad.

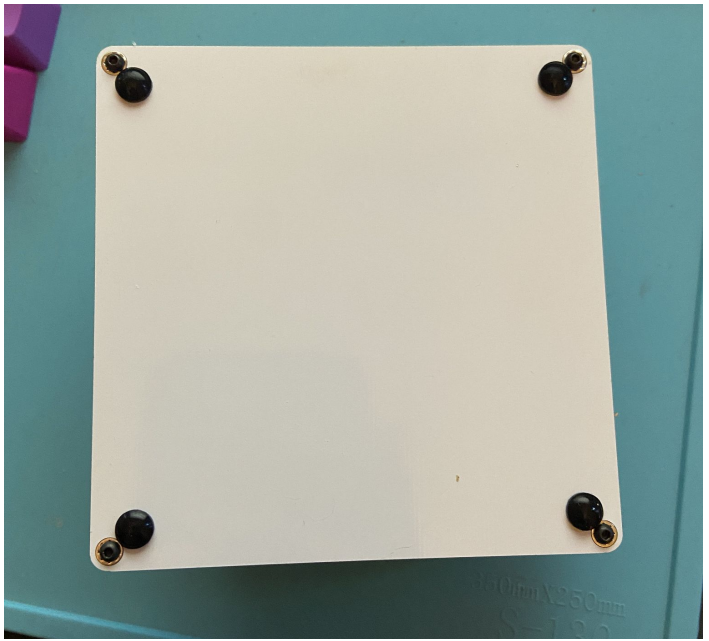




17

Place all keycaps on switches.

FLIP. Place the rubber feet at each corner of the backplate.



DONE!