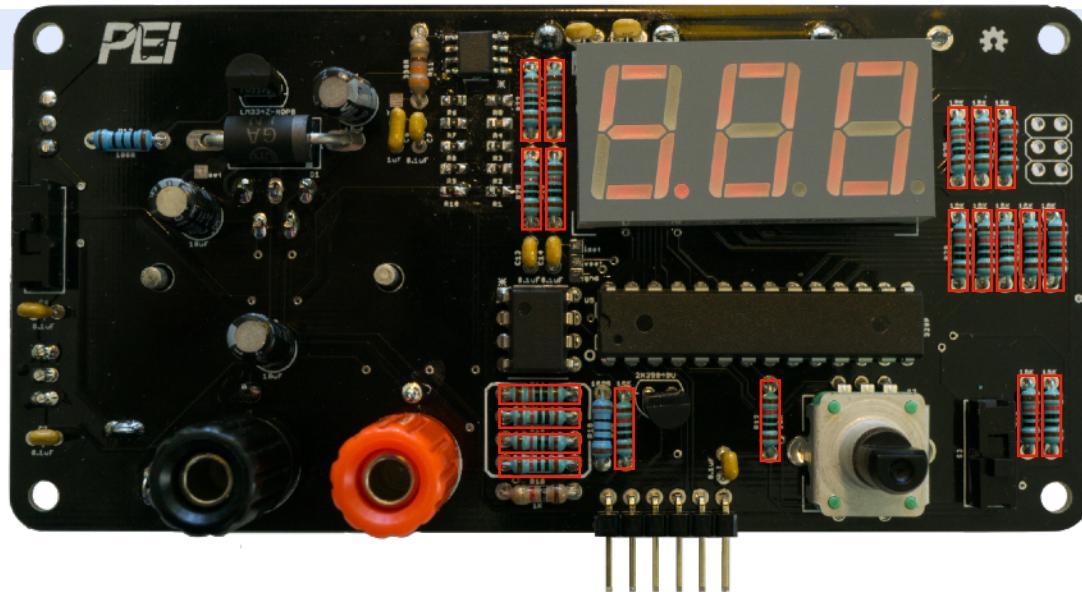


1

Step



Solder 10K resistors

Resistors are non-polar devices, this means that their orientation does not matter.

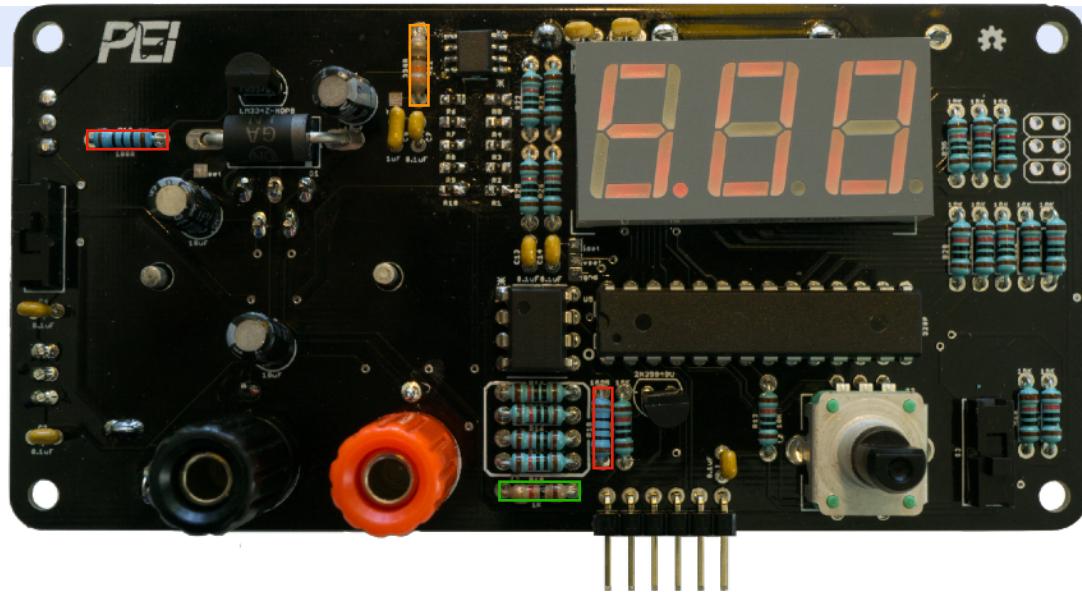
Solder 10K resistors in the marked areas.



x20

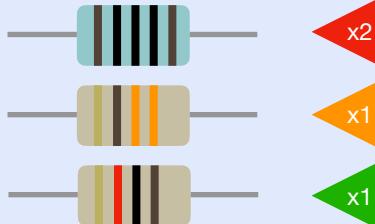
2

Step



Solder 100Ω, 330Ω and 1K resistors

Resistors are non-polar devices, this means that their orientation does not matter.



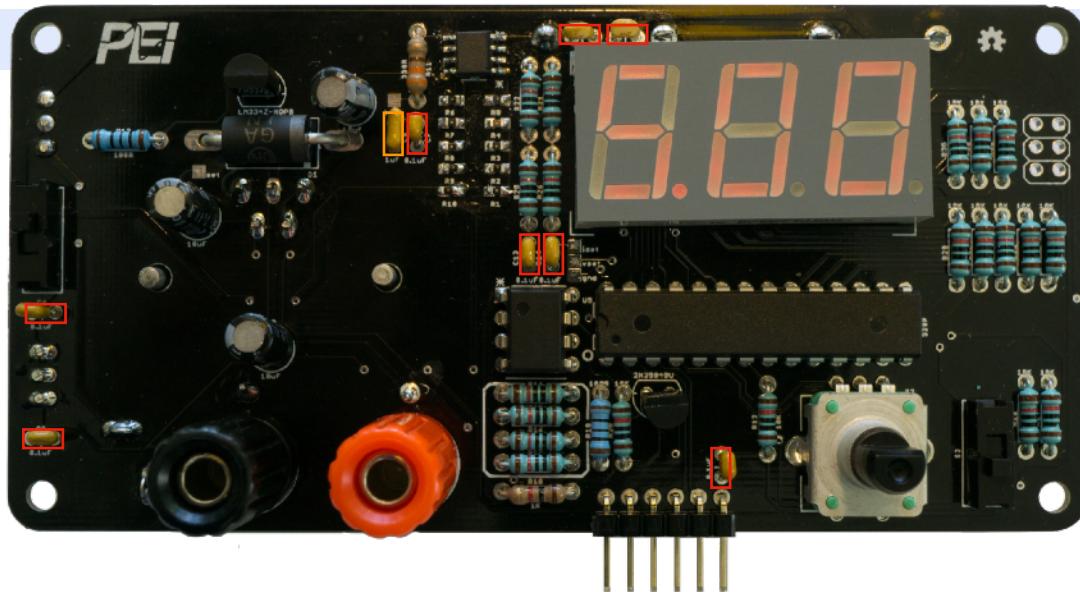
x2

x1

x1

3

Step



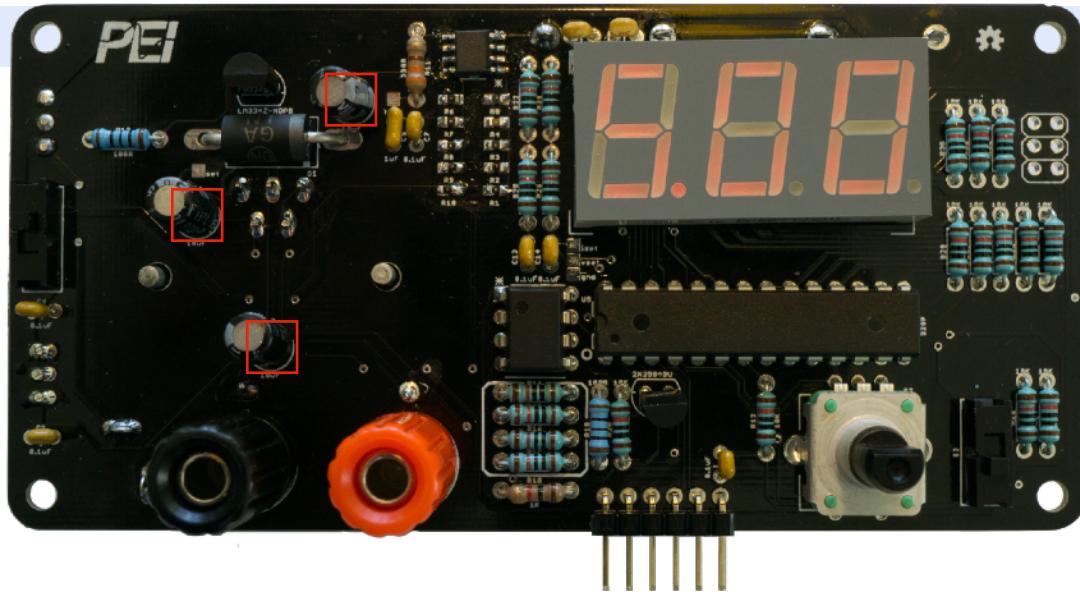
Solder 0.1uF and 1uF capacitors

Some capacitors are polar, but these ceramic capacitors are not. They can be soldered in either orientation. 0.1uF capacitors are marked with a 104 and 1uF capacitors are marked with 105.



4

Step



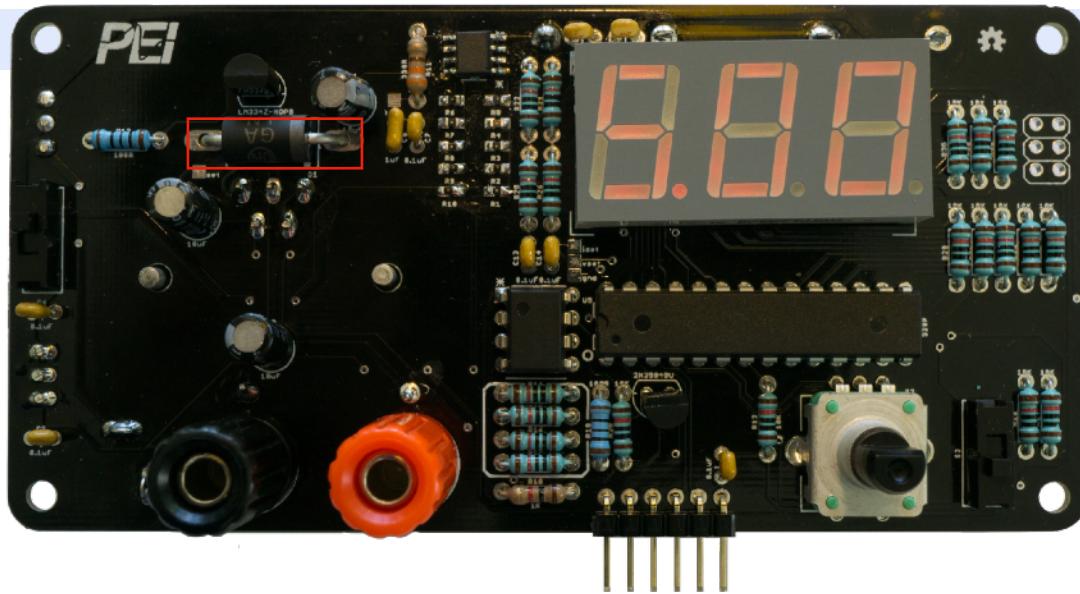
Solder 10uF capacitors

These electrolytic capacitors are polar. When placing these components, ensure that the pin on the same side as the white stripe goes in the negatively labeled hole.



5

Step



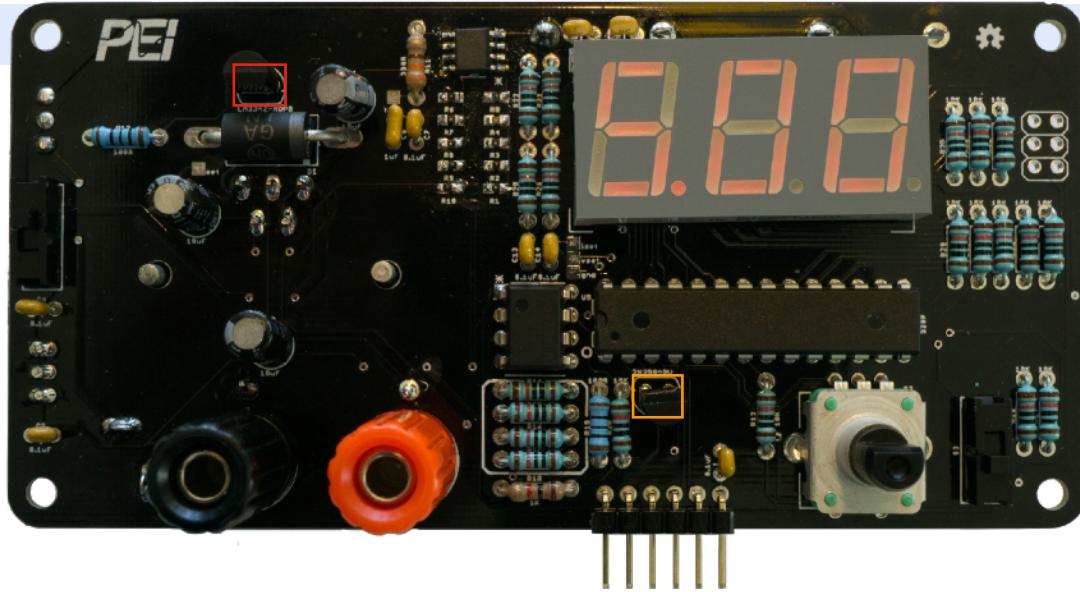
Solder 1N5400 diode

Bending the pins of this beefy diode requires more force than other components. Don't worry though, it is difficult to damage this component. Match the diodes band up to the band on the silkscreen.



6

Step



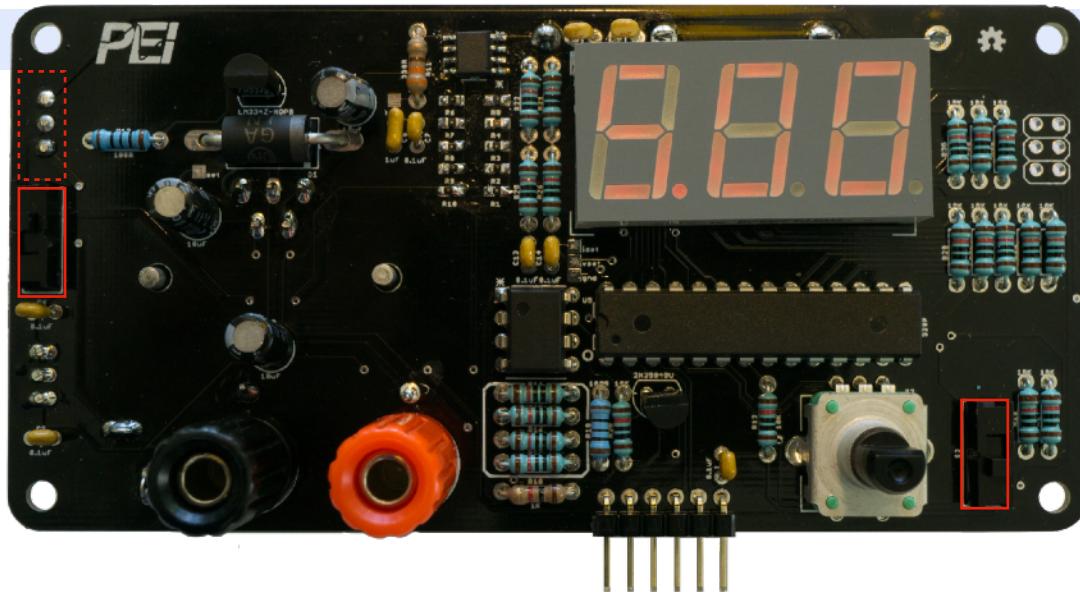
Solder LM334Z and 2N3904

These two devices look almost identical, so ensure to read their markings to ensure they go in the correct place. Also ensure that they are oriented the correct way by looking at the silkscreen.



7

Step



Solder SPDT switches

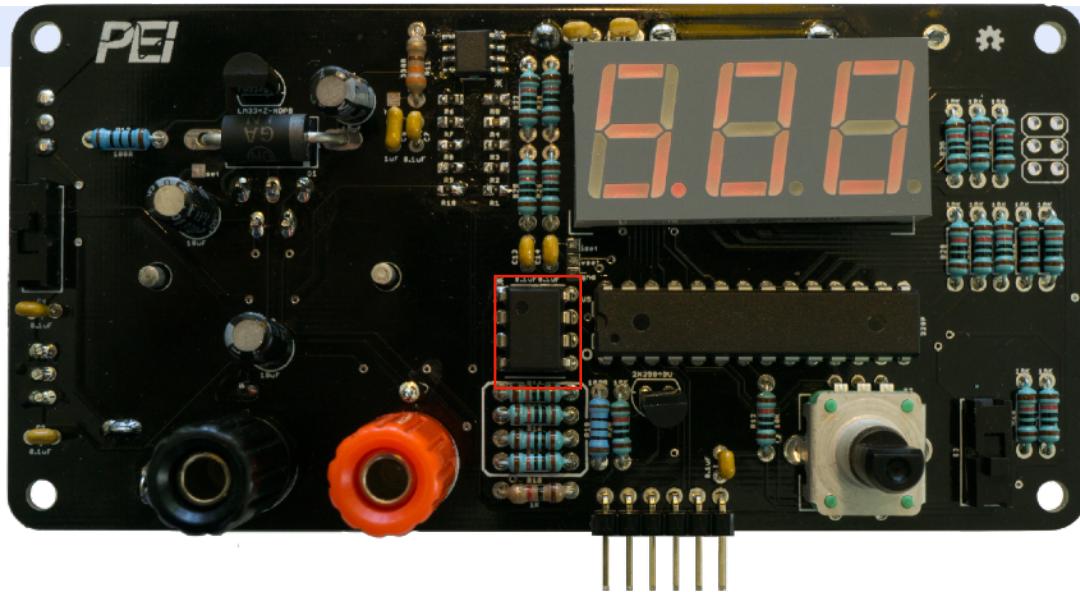
Two of these switches are on the top of the board, and one is on the bottom. Orientation does not matter.



x3

8

Step



Solder TLC2272

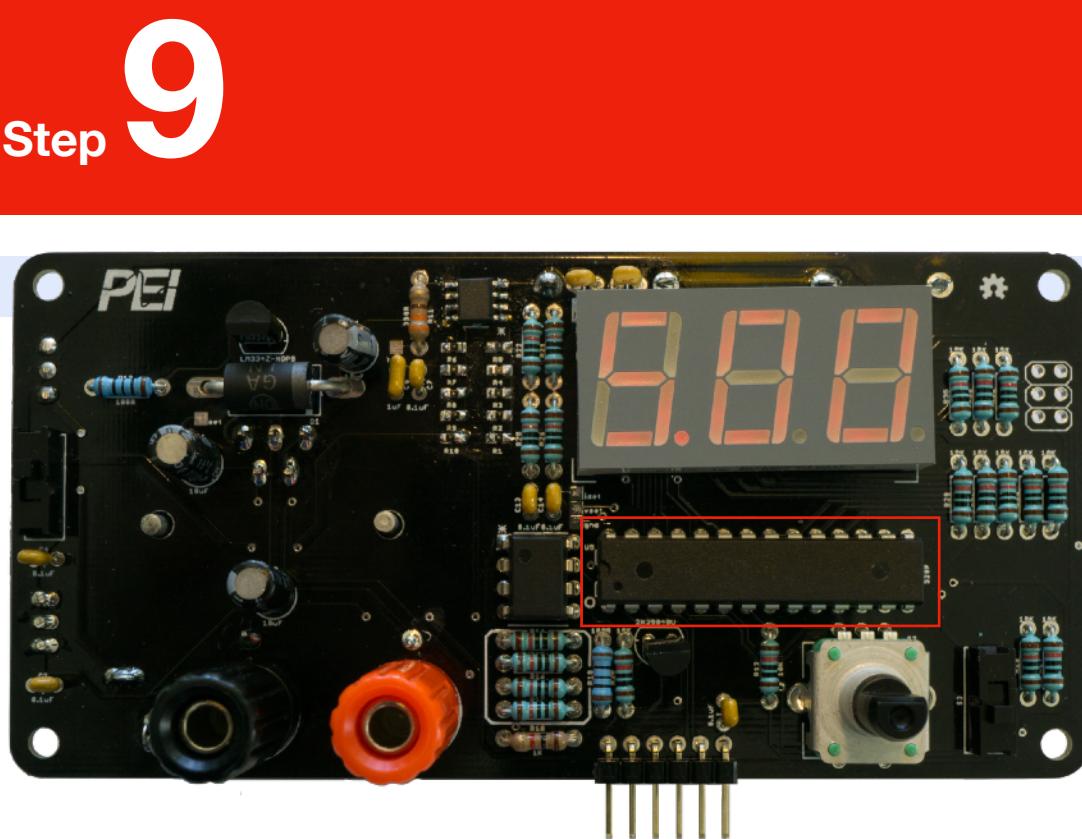
This operational amplifier has a star on pin 1 of the package. Align this star with the star on the silkscreen to ensure correct orientation.



x1

9

Step



Solder Atmega 328

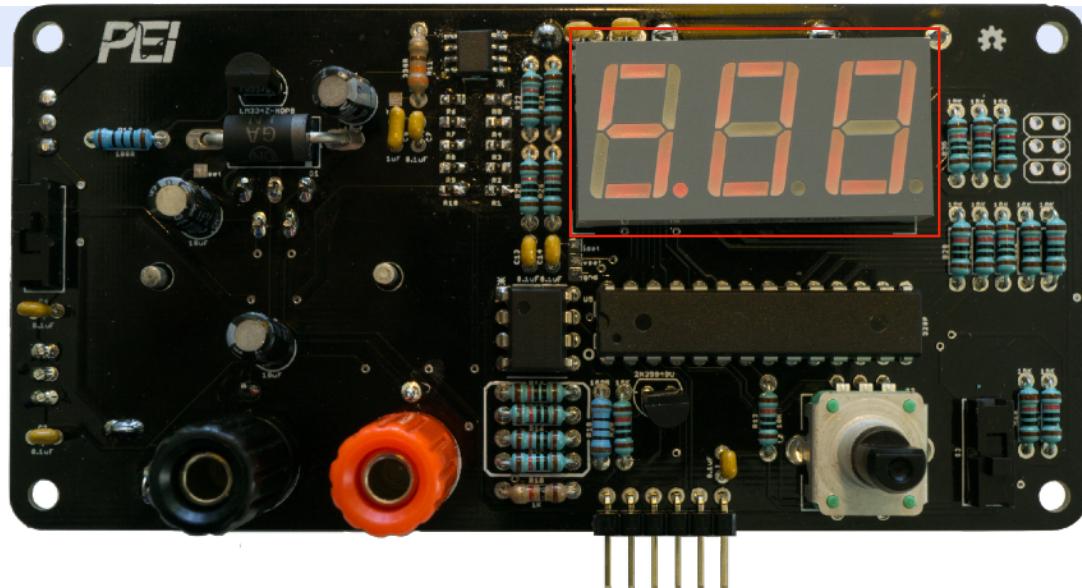
This IC has a cutout that corresponds to the silk screen on the PCB. Orient the cutout so that the two align.



x1

10

Step



Solder 7 segment display

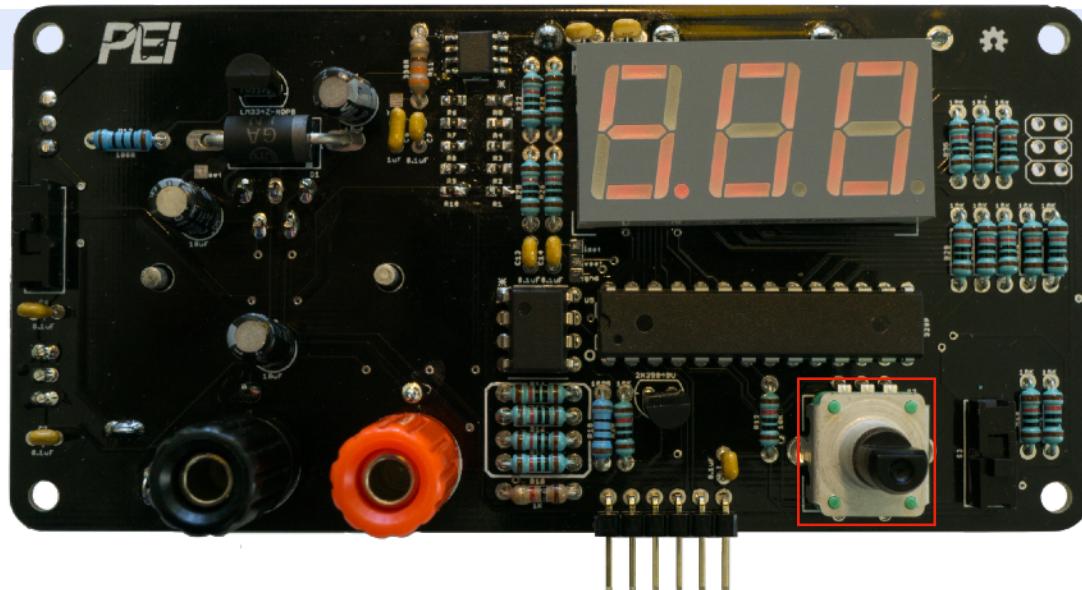
Attach the 7 segment display as shown in the image.



x1

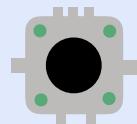
11

Step



Solder rotary encoder

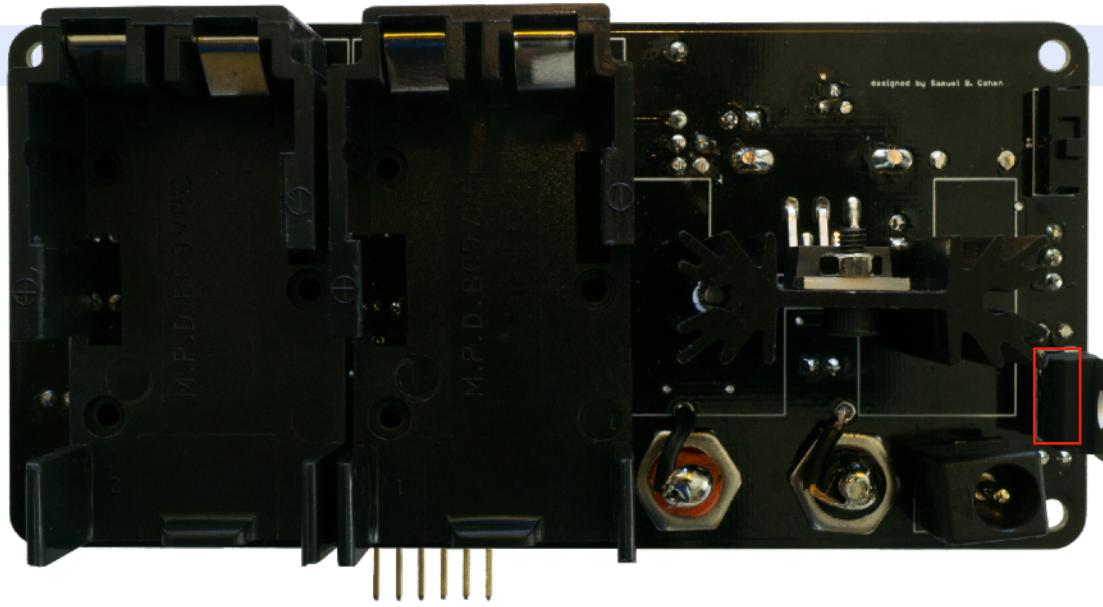
This encoder will only go in one way, follow the image for reference.



x1

12

Step



Solder 5v Regulator

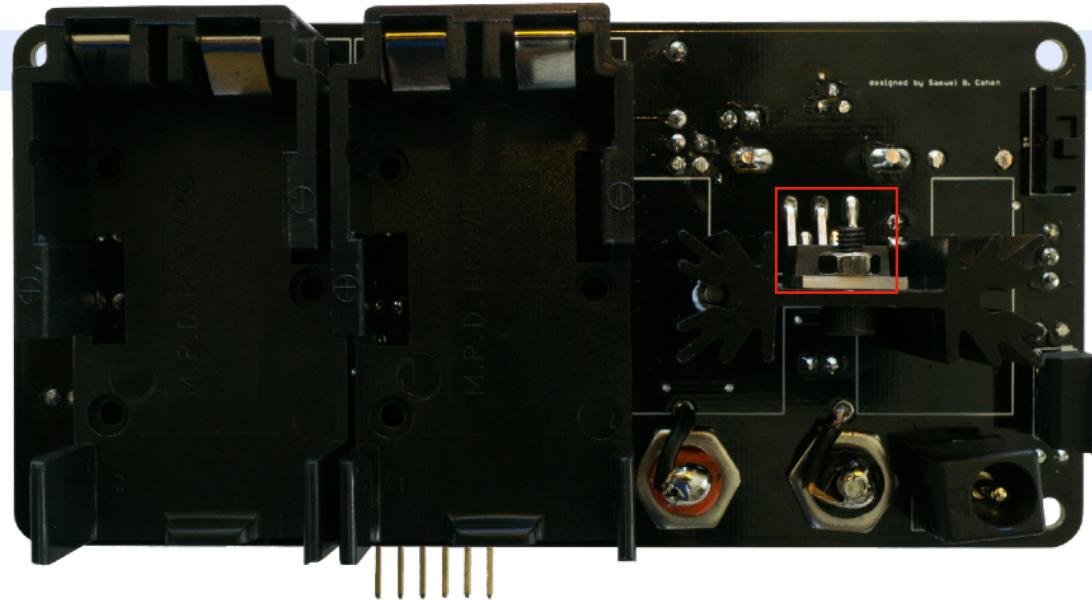
To position this device correctly, ensure that the thick line on the silkscreen aligns with the heat sink on the package.



x1

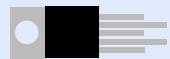
13

Step



Solder LT3080 regulator

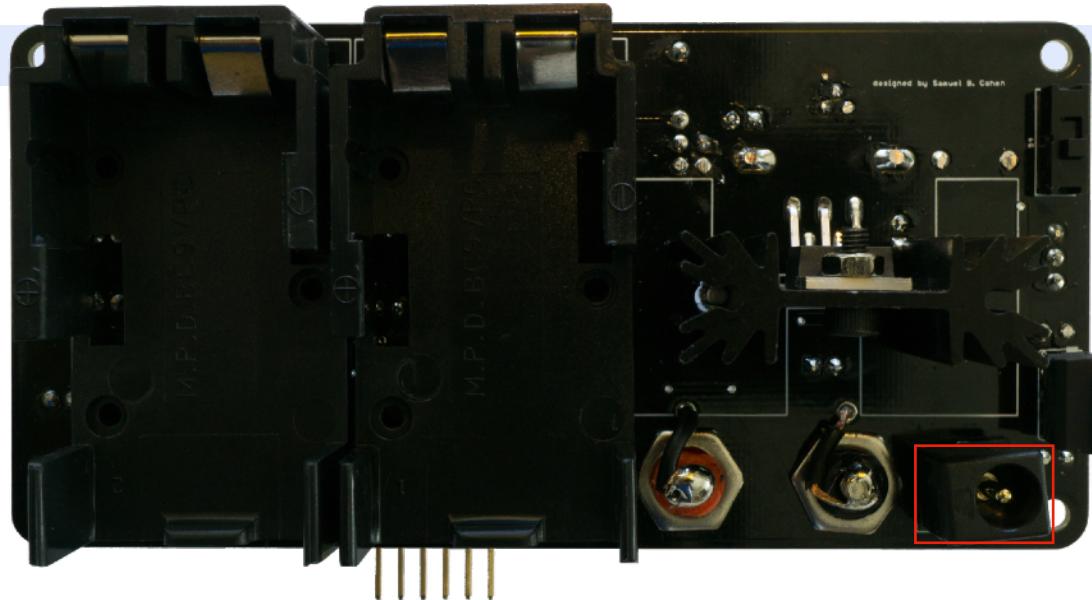
Position the device as shown and solder. Then, attach the heat sink with included nut and bolt.



x1

14

Step



Solder barrel jack

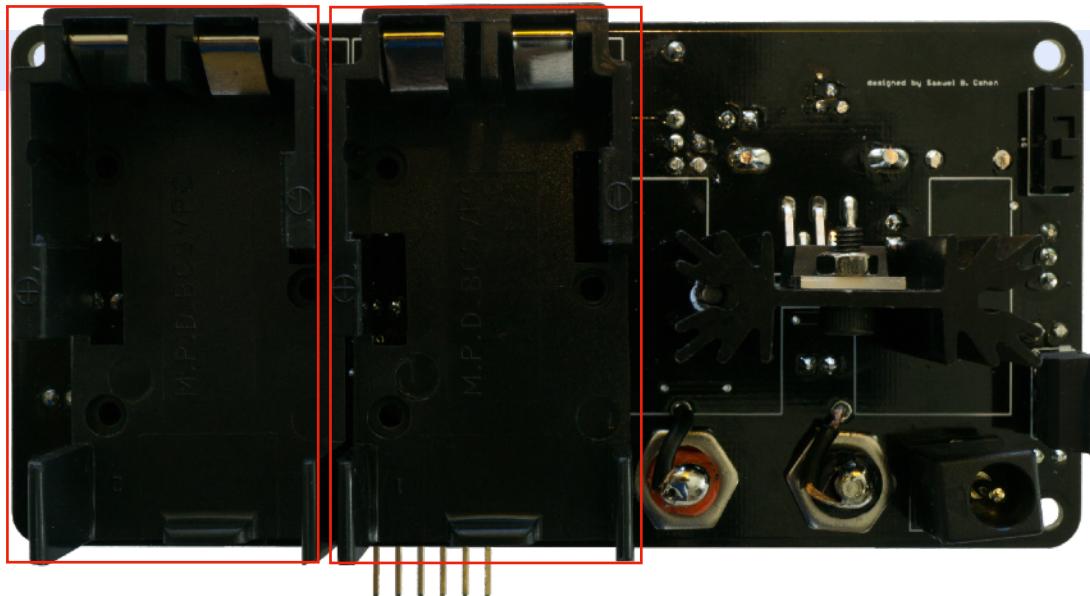
The barrel jack can only be oriented one way as shown in the image.



x1

15

Step



Solder 9v battery holders

If desired, the power supply can be powered by two 9v batteries for low current applications. You may need to trim some of the pins on the larger components to ensure that the battery holders sit flush to the PCB. attach them in the configuration shown