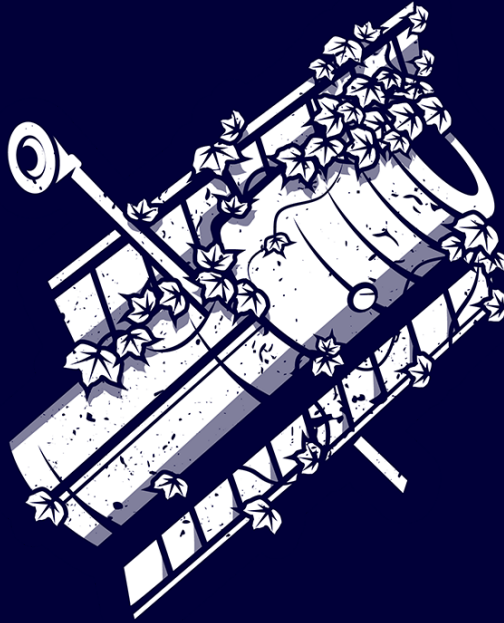


CarolinaCon Online 2 Badge Building Guide



By Matt & Wonkey

Thank you for supporting CarolinaCon Online 2! This building guide assumes you have some experience soldering. If you do not, I highly recommend this tutorial before you begin: <https://www.youtube.com/watch?v=VxMV6wGS3NY>

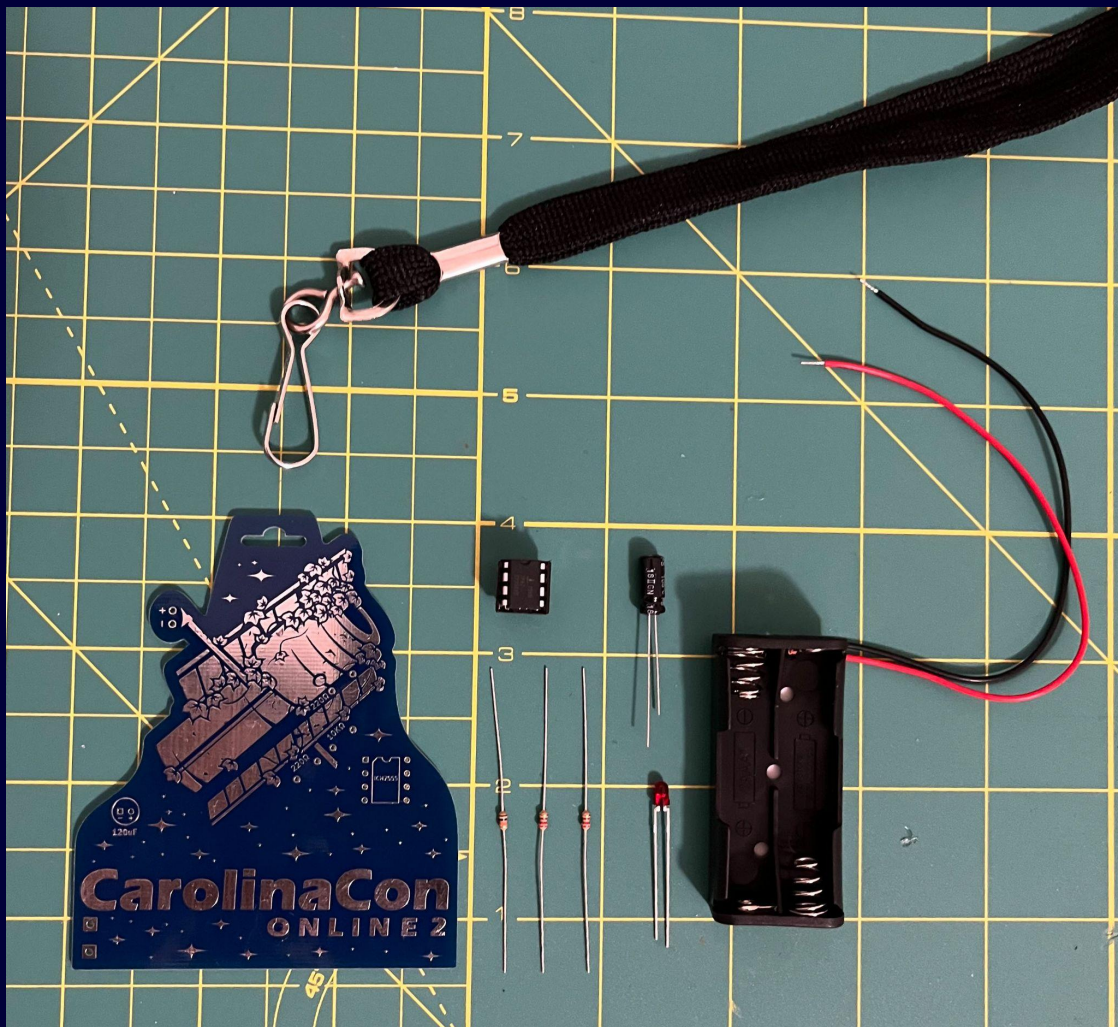
I streamed myself soldering a badge during the con. It's not quite a tutorial and the video quality can make it hard to see, but it can be helpful to view if you get stuck. You can view that stream here: <https://youtu.be/d7v0JCeIqe4>

Tools you will need:

- Soldering Iron
- Solder
- Solder wick / Solder sucker (nice to have for mistakes but not necessary)
- Wire Strippers
- Cutting Shears (snips) to cut the component leads
- A beer or mixed drink to keep things interesting

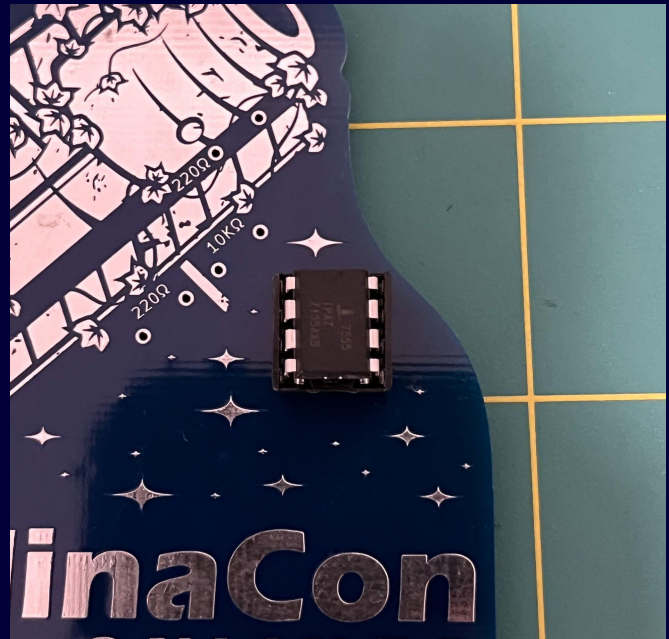
Parts included in each kit:

- 1 Satellite themed PCB
- 1 black lanyard
- 1 555 Timer IC
- 1 8 pin IC socket
- 2 220 Ohm resistors
- 1 10k Ohm resistor
- 1 red LED
- 1 120 uF Capacitor
- 1 2xAAA battery pack (with foam tape already applied to the back)

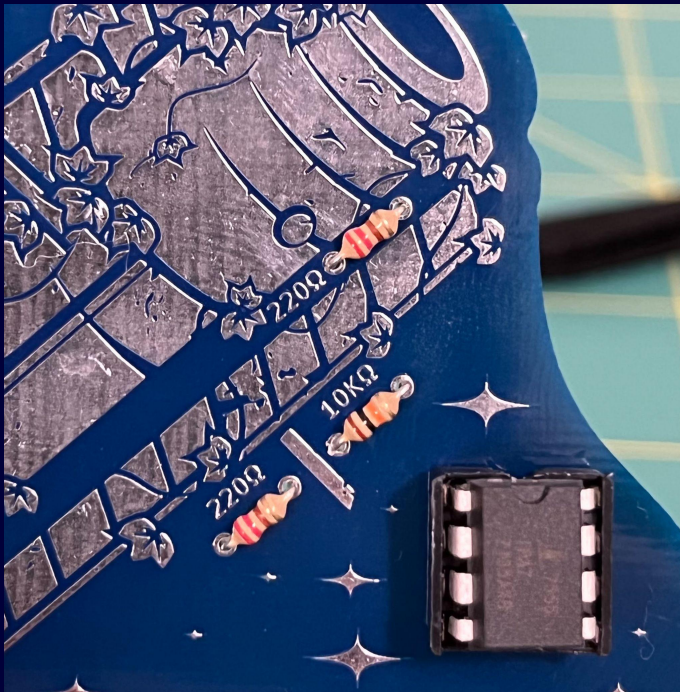


Start out by placing the IC socket into the spot on the right side of the badge. Ensure the small semi circle notch is facing up.

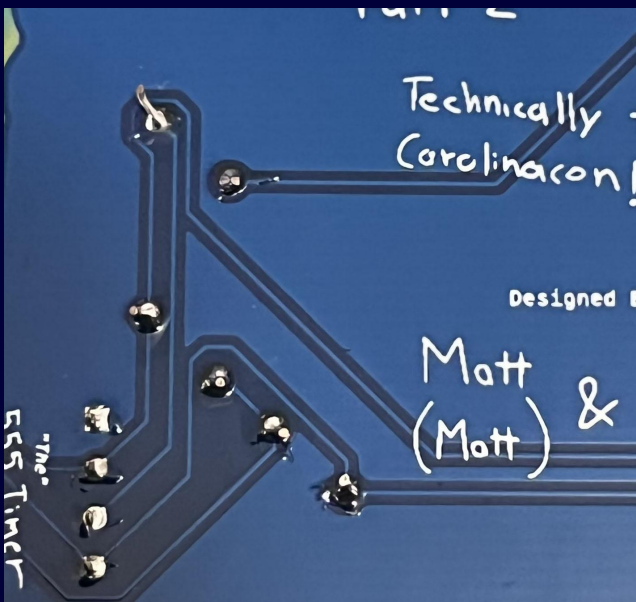
The 555 timer should already be placed into the IC socket as it arrives in the bag. There is no issue soldering the socket while the IC is in it.



Flip the badge over and solder the 8 pins of the socket.

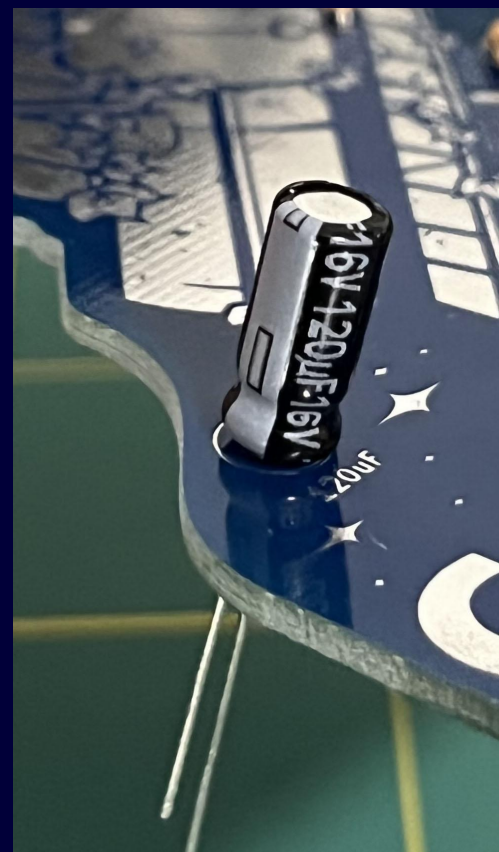
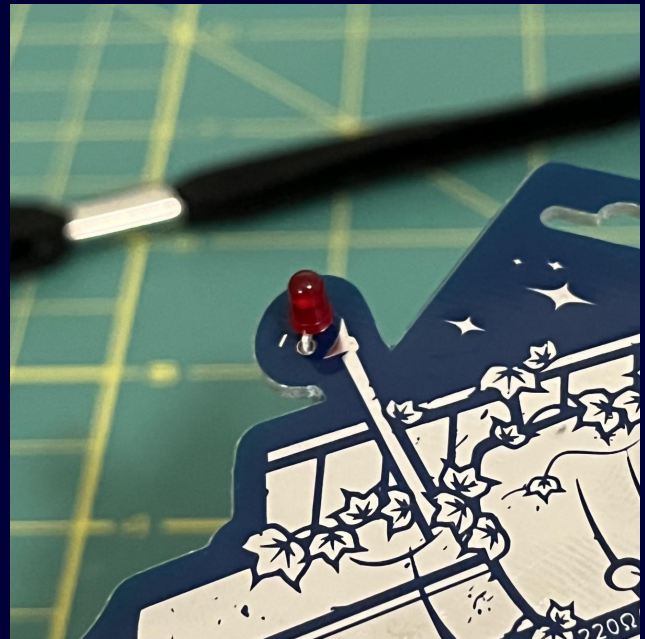


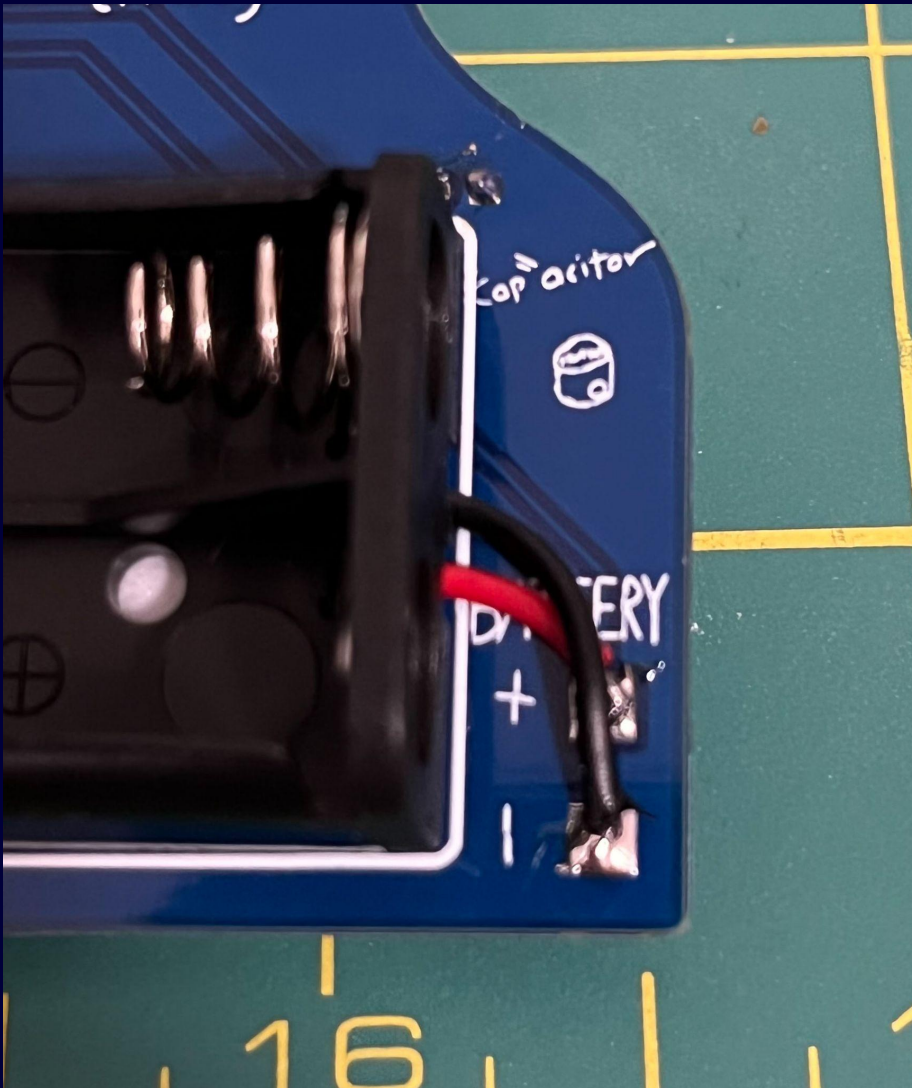
Bend the leads of the 3 resistors so that they can be inserted into the PCB like this. Ensure you place the 10K resistor, the one with the black stripe, in the middle of the other 2, like how it is on the pic on the right.



Solder those resistors like this and snip the ends.

For both the LED and the capacitor you need to ensure you place the negative end of the components in the hole labeled negative. The negative end can be identified as the shorter lead.





Peel off the paper from the adhesive tape on the battery holder. Carefully attach the battery holder to the back of the PCB.

Cut the power wires to length and solder them to the board.

Congrats! You have assembled your badge. Feel free to message us in the CarolinaCon discord if you have any questions. Happy Hacking!

