

Carolina Con 15 Badge Guide



Hack the Planet

By wm & mt



Each anti static bag should include:

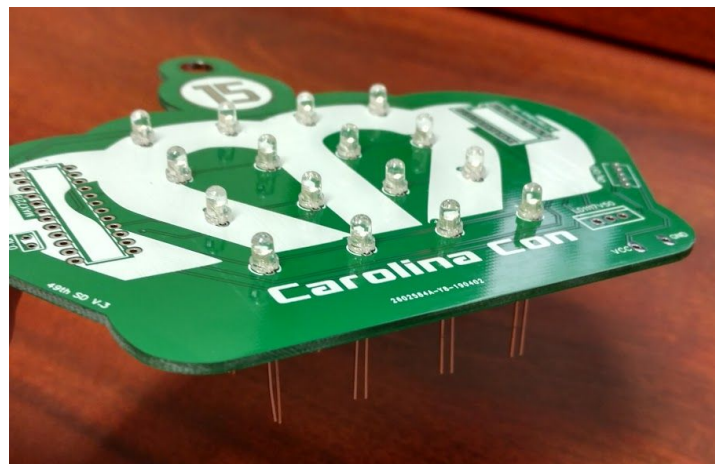
- 1 Crown Shaped PCB
- 16 Clear Blue LEDs
- 1 Battery Pack for 4 AAA Batteries
- 1 Power Switch
- 1 5V Voltage Regulator (The thing with 3 metal prongs)
- 1 0.1uf Capacitor (Yellow thing)
- 1 10K Resistor (not pictured, our bad)
- 1 7 Pin Socket
- 1 12 Pin Socket
- 1 ATTINY84 (The brain)
- 1 MAX7219 (The bigger looking IC)

*if your bag is missing parts tell someone who looks like they know where to get more parts

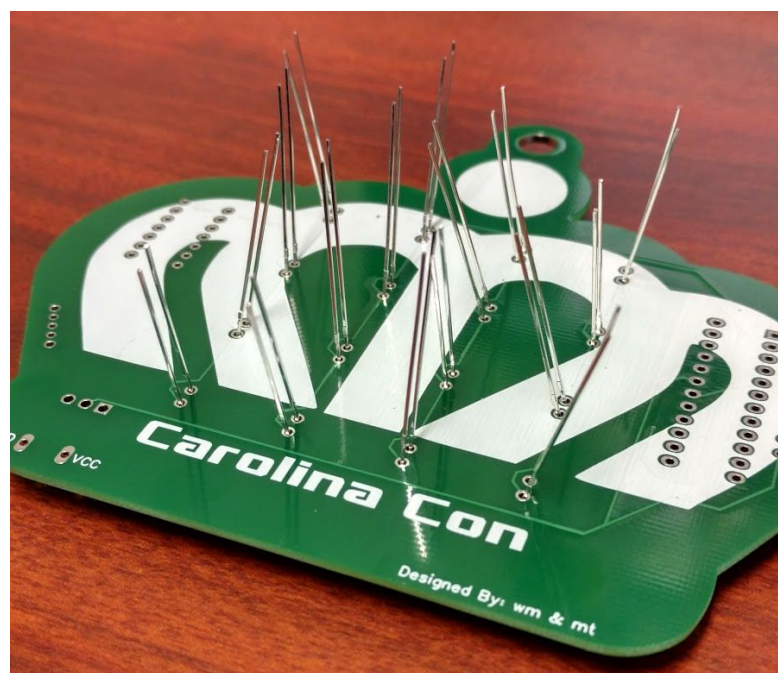
I recommend soldering the parts in this order. If you don't know how to solder shout "I don't know how to solder!" and someone will help you.



Insert the 16 LEDs into the front of the PCB. Ensure the longer lead goes into the hole with the "+" label.



Once the LEDs are in place carefully flip the PCB upside down so that the leads are sticking up.



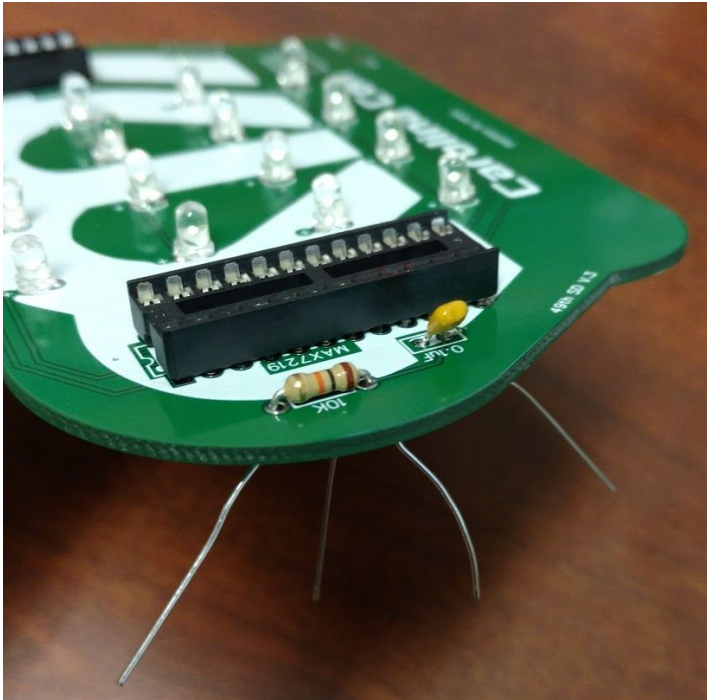
Now that the PCB is upside down you may solder the LEDs to the PCB. Try and keep the leads as straight in the air as possible.



Clip off the LED leads with clippers.

Solder the 2 IC sockets next by applying solder to the pins on the backside.

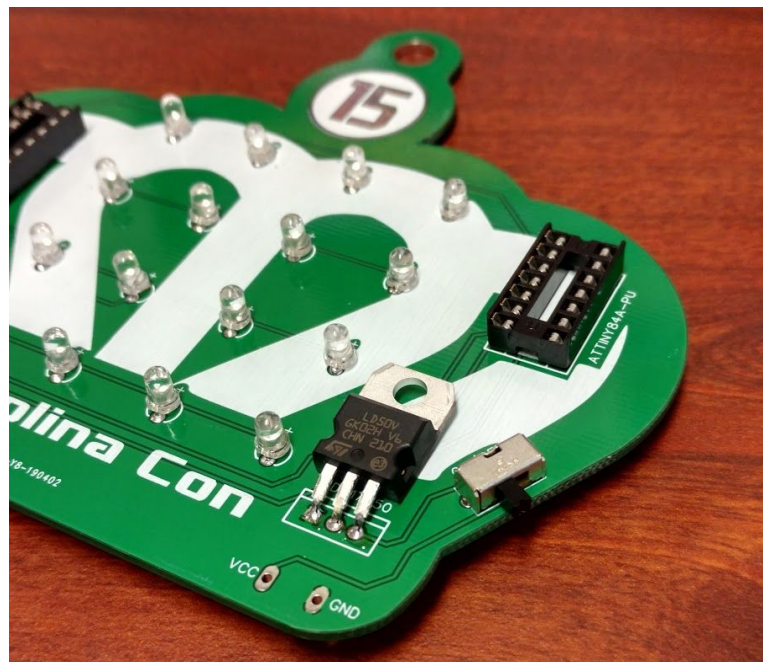




Place the 10K Resistor and 0.1uF Capacitor in their respective locations. You may need to pull the capacitor through the hole with pliers. Apply solder to the backside of the PCB.

Place the 5V regulator in the PCB holes as far as it will go then bend it flat onto the PCB. It doesn't need to be super close. Apply solder to the 5V regulator on the top of the PCB.

Press the Power Switch onto the PCB. Ensure the black plastic is hanging off of the PCB. Solder it in place by applying solder to the back of the PCB.



Flip the PCB over and cut off any remaining leads. Get a strip of tape from the roll and apply it like shown in the picture. Honestly, it doesn't stick very well. Feel free to use duck tape if we have that onsite.

