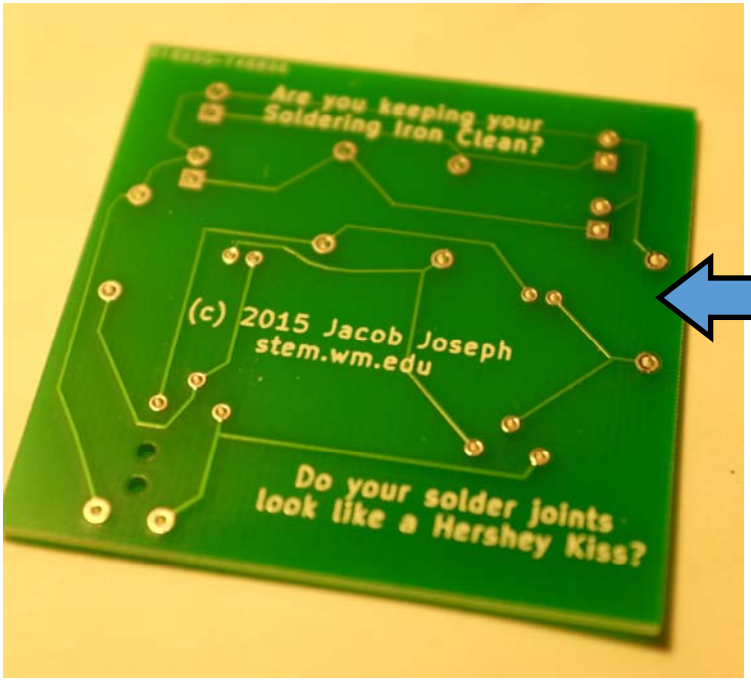
Blinky Kit Instructions

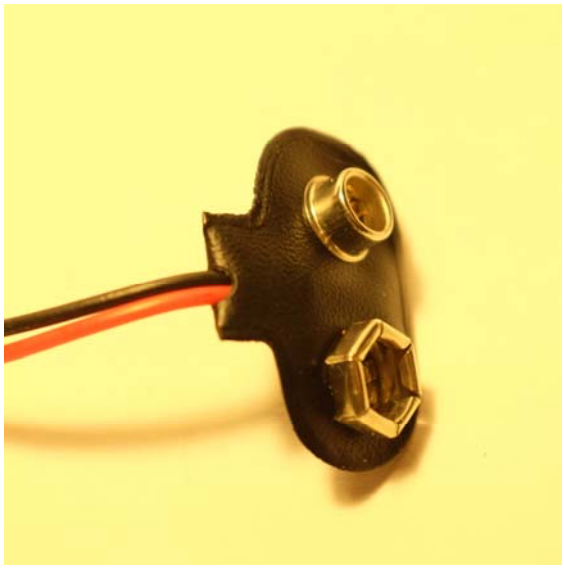
KEY POINTS

- **Be patient**
- **Take your time to clean the soldering iron**
- **Make sure all the solder joints are solid**
- **Some components can be put in backwards –pay attention to the instructions**



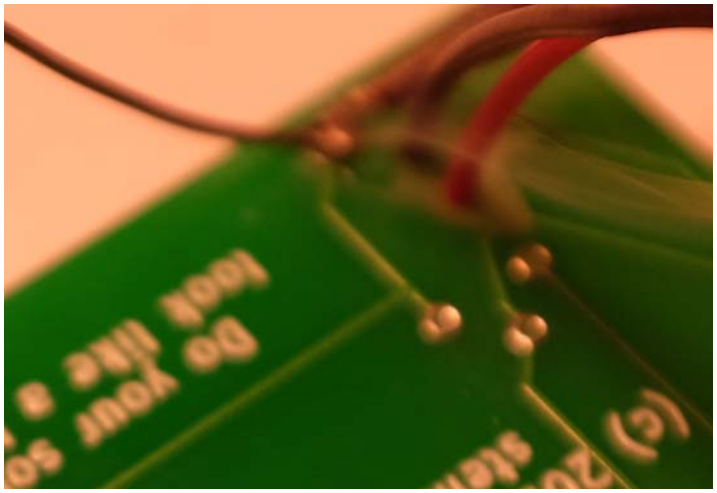
Step 1: Find the circuit board. This picture is the back of the circuit board

Step 2: **Find the battery snap**



Step 3: Put the battery snap in place.
The red wire goes to the hole marked "red" and the black wire goes to the hole marked "black". This is very important. If you reverse these, the blinky will not work.

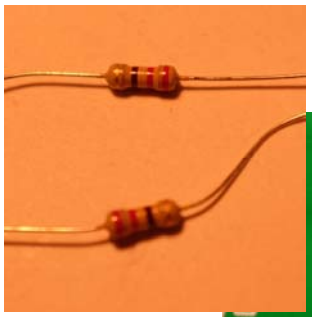
Feed the wires through the holes on the back of the circuit board

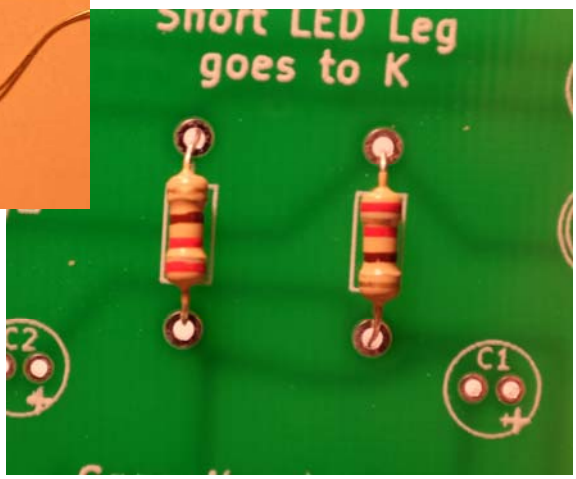


Step 4: **Solder the battery snap in place**

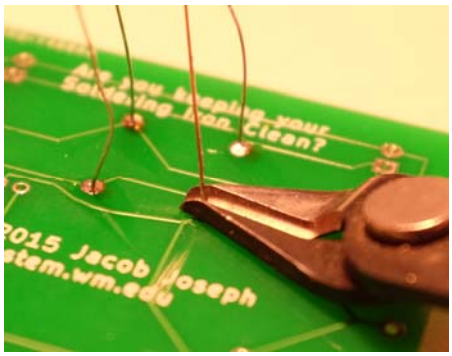
Step 5: **Find and place the 220 Ohm Resistors.** Resistors are identified by color bands. In this case, the resistors will be RED, RED, BROWN.

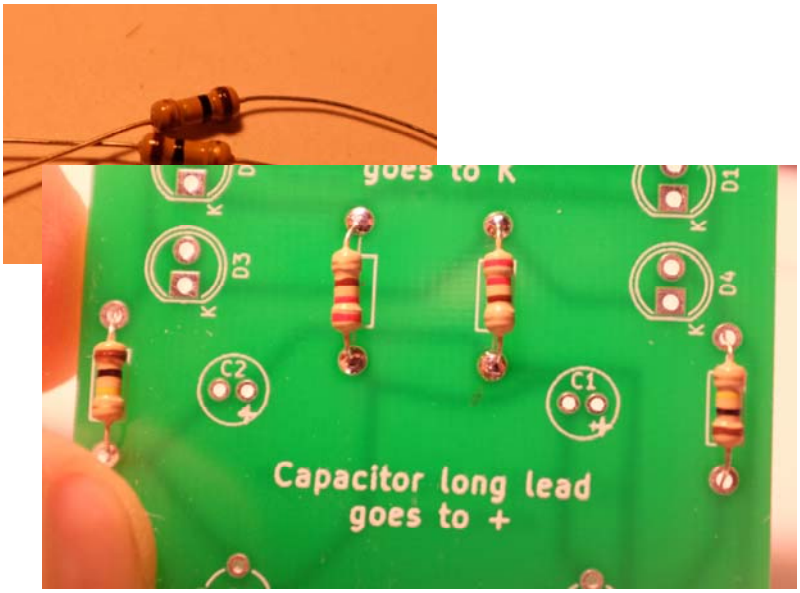
These resistors go in the R1 and R4 positions on the board. It doesn't matter which way these resistors go in. Solder these resistors in place





Step 5: **Clip the leads on the Resistors you just soldered.**



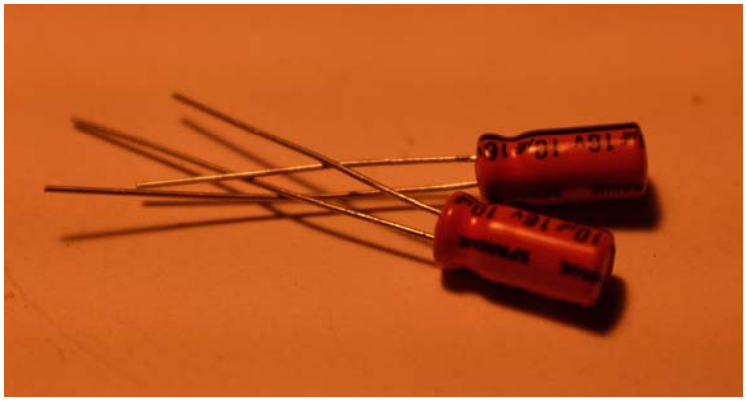


Step 6: **Find the 100K resistor.** These have BROWN, BLACK, AND YELLOW bands or BROWN, BLACK, BLACK, AND ORANGE bands.

Place these resistors in the R2, and R3 spots. Solder them in place and clip the leads.

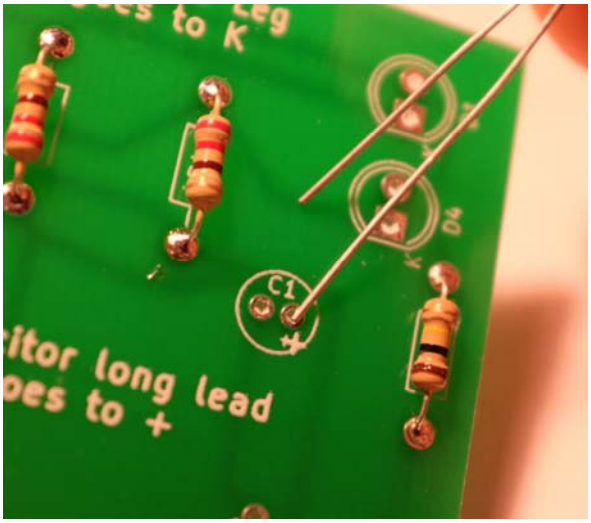
Step 7: **Find the 10uF capacitors.** These can be either black, yellow, blue—but they look like little tubes with wires coming out of one end.

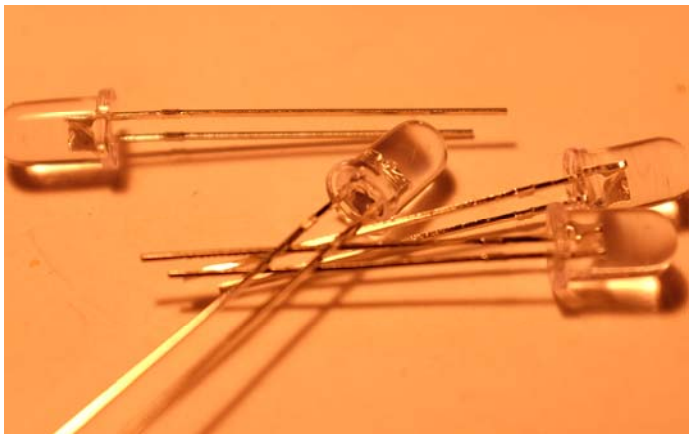
These are POLARIZED, which means they should only be put in one direction on the board. YOU CAN PLACE THESE IN BACKWARDS—physically they will fit, but electrically, they will not function



Step 8**: Install the capacitors in the circuit board, solder, and clip the leads.**

The capacitors go in C1 and C2 The LONG lead of the capacitor goes to the + on the circuitboard. **The picture on the right shows how the capacitor should be installed.**



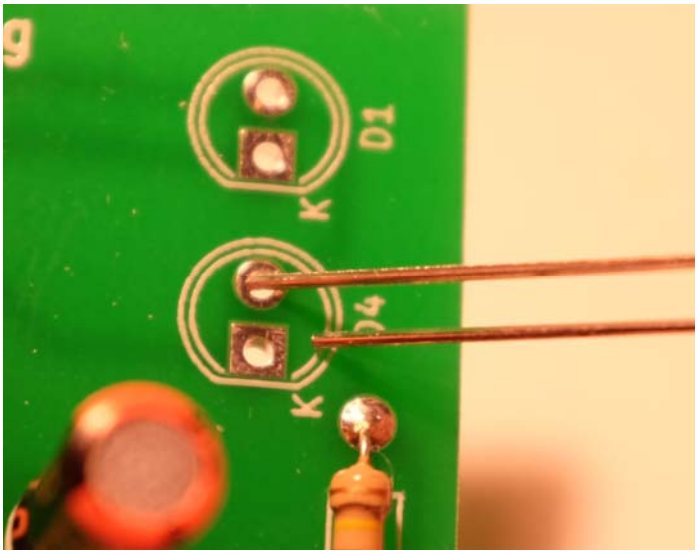


Step 9: **Find the LEDs.**

LEDs are POLARIZED, just like the capacitors**. YOU CAN PLACE THESE IN BACKWARDS—physically they will fit, but electrically, they will not function**

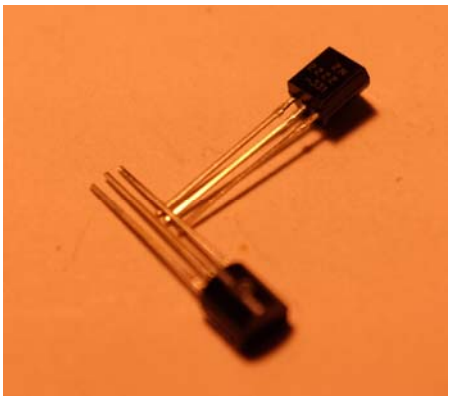
Step 10: **Install the LEDS in the circuit board, solder, and clip the leads.**

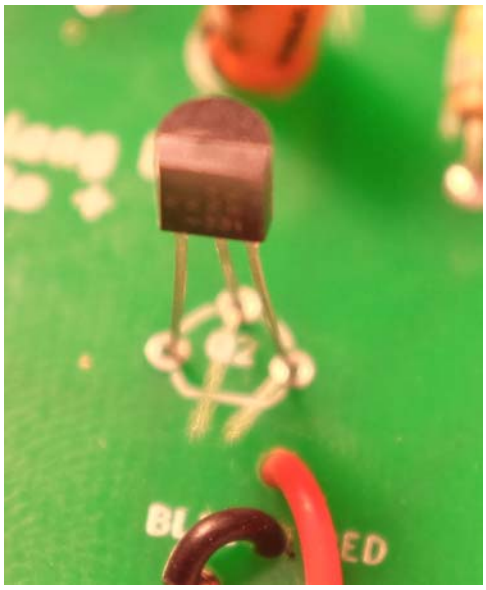
The LEDs should be installed in D1, D2, D3, and D4. Make sure that the SHORT leg on the LED goes to the K marked on the circuit board **as shown in the picture to the right.**



Step 11: **Find the transistors.**

Transistors are POLARIZED like the LEDs and capacitors. **YOU CAN PLACE THESE IN BACKWARDS—physically they will fit, but electrically, they will not function**.





Step 12: **Install the transistors in Q1 and Q2**

Make sure that the flat part of the transistor matches the outline of the transistor printed on the PCB. **As shown in the picture on the left.**

Install, solder, and clip the leads.

Step 13: **Recheck all your connections, and put the battery in the snap!**

You now should have a working blinky.

If the blinky does not work

1) **Check to make sure all the polarized components are installed as shown in the pictures**
2) **Check your solder joints to make sure they are sound.**

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