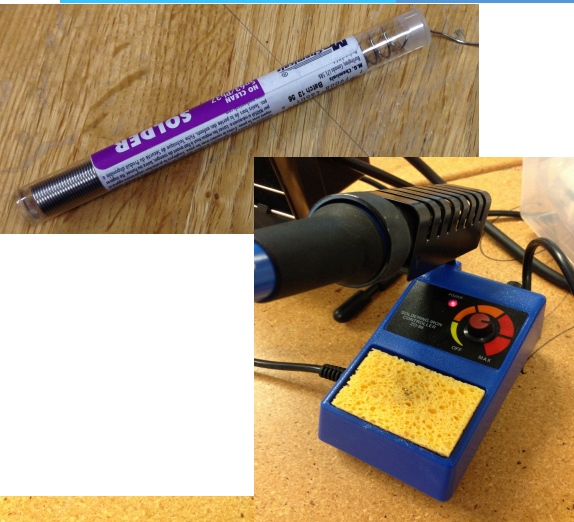


How To Solder: Tips & Tricks

Alison McLaughlin ~ Robotics D



Let's Define Some Terms!



- Solder
 - A low-melting alloy used for joining metals
- Soldering Iron
 - Tool used for melting solder



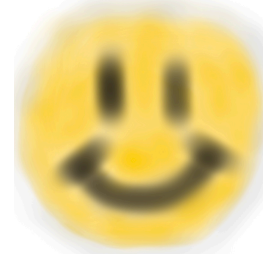
- Circuit Board
 - A printed circuit
- Solder Wick



- Copper wire designed to remove solder

Preparing To Solder

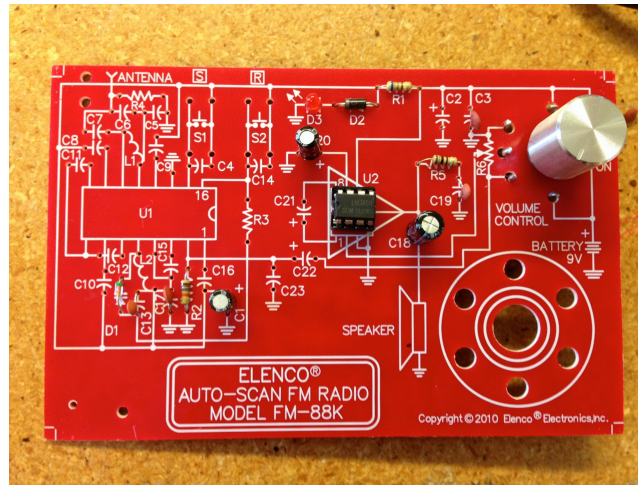
- Gather ALL materials
- Set up station
- Wet sponge
- Warm up solder – turn dial clockwise to the 3:00 position
- Turn on Solder Fume Extractor
- Take all safety precautions
- Prepare to Solder! Get Ready!



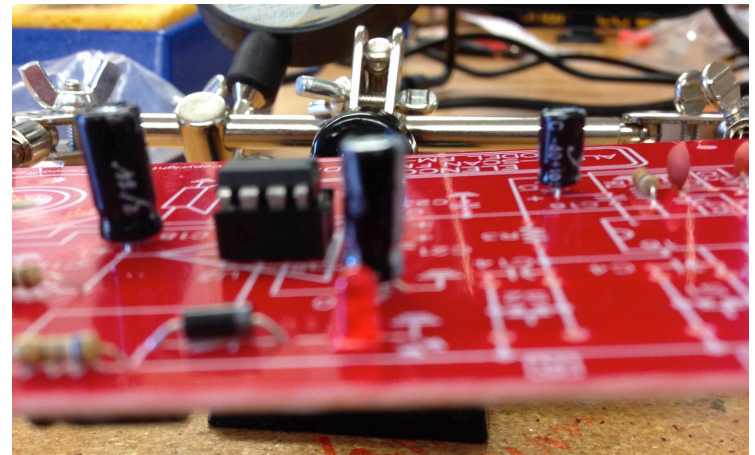
- Material List
 - Soldering Kit
 - Solder and Solder Wick
 - Circuit Board
 - Components for CB
 - Wire Clippers
 - Helping Hands with Magnify Lens
 - Solder Fume Extractor (Fan)

What Can We Solder?

- Light Emitting Diode (LED)
- Capacitor
- Resistor
- Wires



* There are hundreds of “techy” materials that you can solder together on a circuit board. The objects listed above are just a few out of many.



Let's Try Soldering An LED!



➔ Steps:

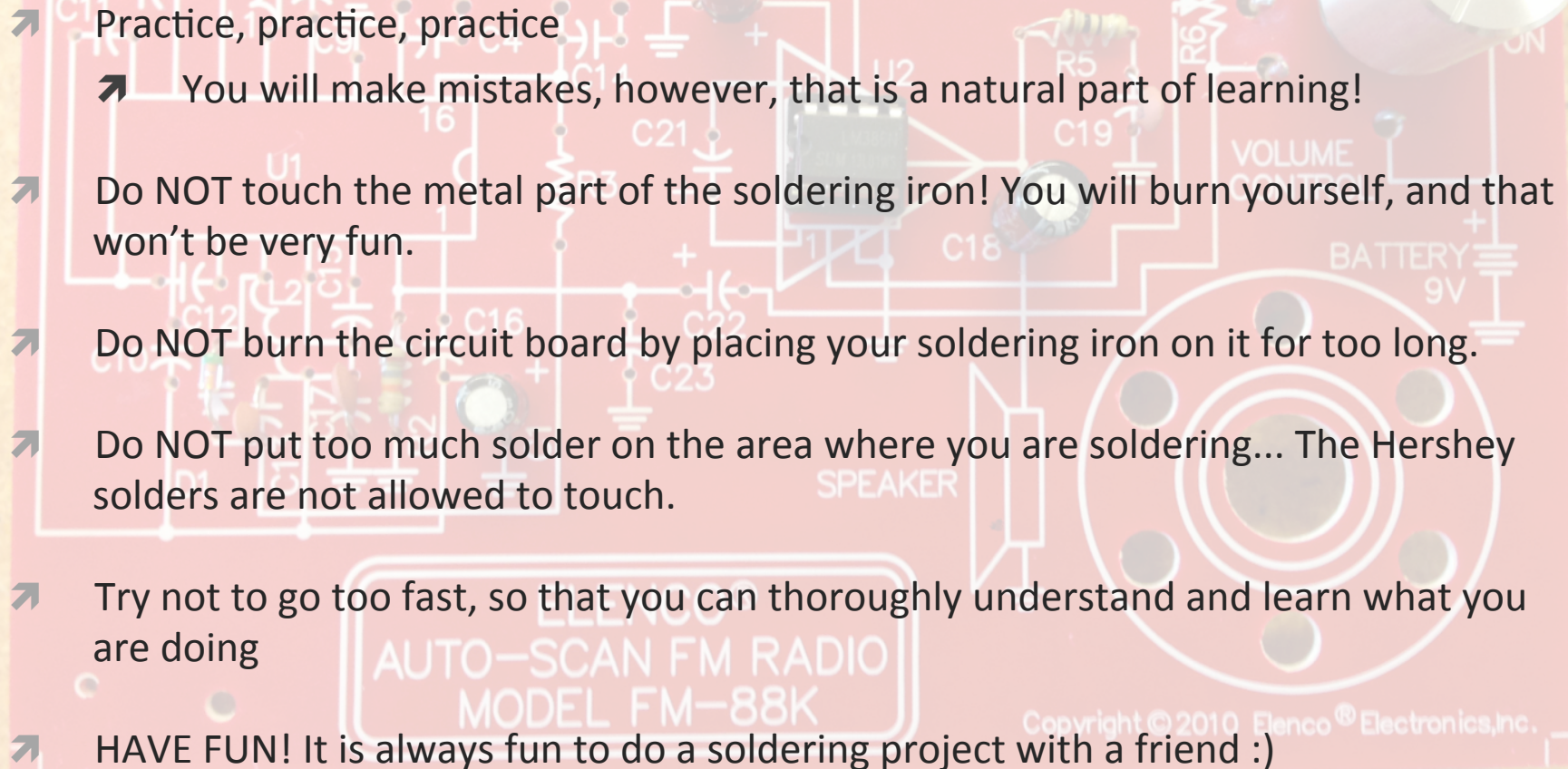
1. Locate the cathode and anode on the LED
2. Place the cathode (negative) in the circuit board where the minus sign is (-)
3. Place the anode (positive) in the circuit board where the plus sign is (+)
4. Make sure the LED is in securely

Let's Try Soldering An LED Continued...

1. Turn your circuit board over
2. Place your hot soldering iron by where the LED cathode/anode (either one can be first) connects to the circuit board
3. Place your solder on the soldering iron
4. Release the solder once a nice Hershey shape of solder has formed
5. Wet your soldering iron on the damp sponge
6. Solder the other half of the LED
7. Take your wire clippers and snip off the remains of wire that does NOT have solder on it
8. Power down the fan and soldering iron
9. Clean UP!!!



Handy Tips ~ Practices & Pitfalls

- 
- Practice, practice, practice
 - You will make mistakes, however, that is a natural part of learning!
 - Do NOT touch the metal part of the soldering iron! You will burn yourself, and that won't be very fun.
 - Do NOT burn the circuit board by placing your soldering iron on it for too long.
 - Do NOT put too much solder on the area where you are soldering... The Hershey solders are not allowed to touch.
 - Try not to go too fast, so that you can thoroughly understand and learn what you are doing
 - HAVE FUN! It is always fun to do a soldering project with a friend :)
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Thank You!!!

Questions???

