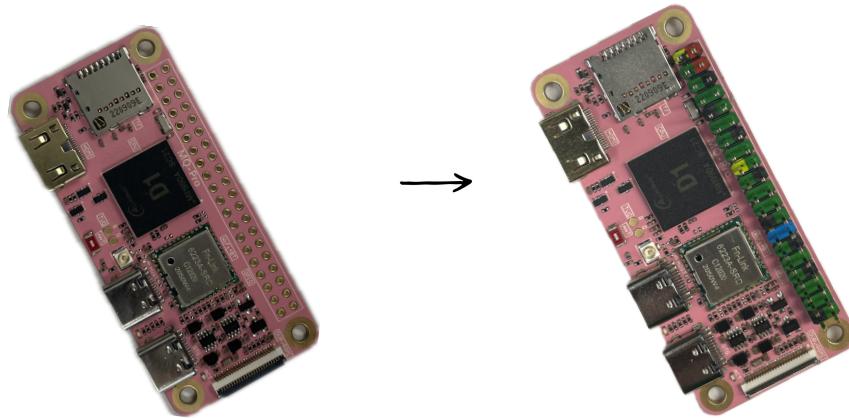


CS 107E Soldering Guide

(written by Didi Kamalova)



Step 1: Prepare

Before you dive in, make sure to have your workbench ready. Prepare the following things:



Soldering Iron



Safety Glasses



Fume Extractor



Brass Sponge



Solder with flux

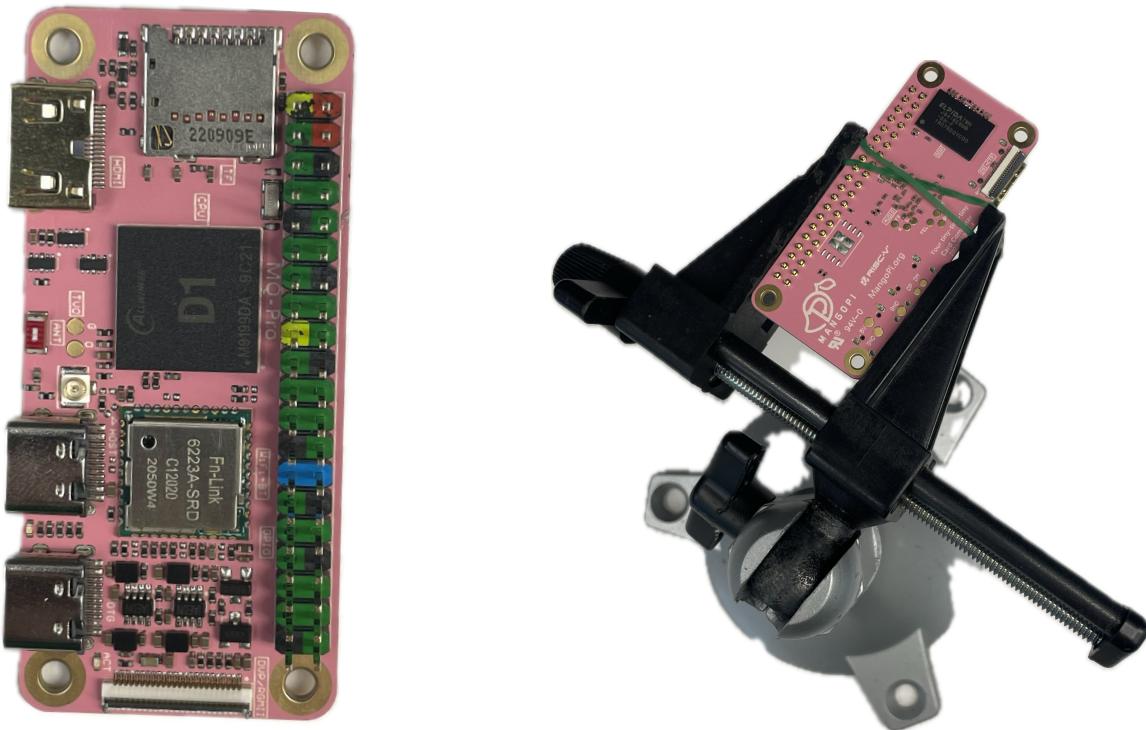


Holder

Step 2: Secure your board!

Make use of a small rubber band (or anything as such) to attach the header pins to the board, and secure the board on a holder. You will only need the rubber band for the first couple of joints, and then you can take it off.

Make sure your board is in a solid, comfortable working position. Consult with the image below to confirm that the header placement is correct (use header colors and SD card slot location for navigation).



Step : Solder!

Unwind about 6 inches of solder from the spool with one hand and grab the soldering iron by the **plastic/foam holder** with your other hand like you would hold a pen. Gently wipe the old solder off the brass sponge.

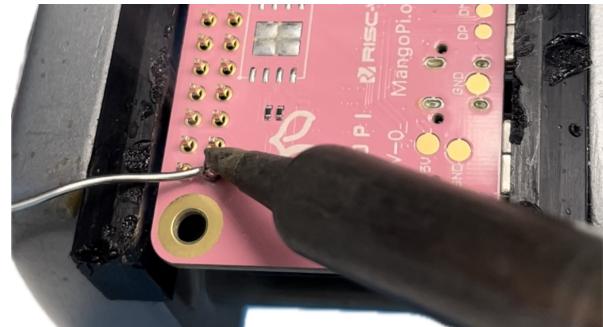
To ensure your soldering iron is sufficiently heat up, try melting a small amount of solder on the tip (it should stick to the top of the iron).

Now, onto the fun part!



1. Place the soldering iron tip onto the pad you intend to solder, making contact with BOTH the pad and the pin.

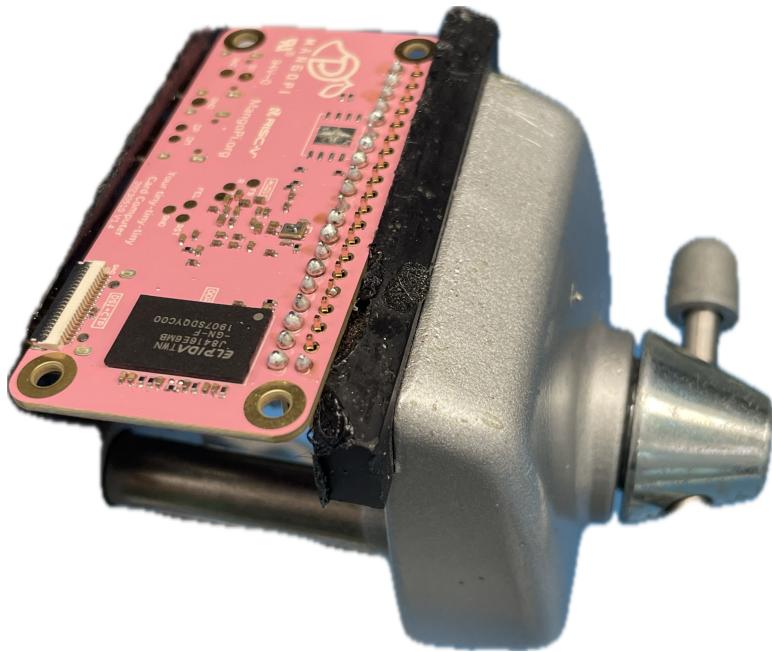
2. After pausing for a moment, use your other hand to feed solder wire into the joint.



3. Remove the iron shortly after you are done feeding solder into the joint.

Step 4: Continue soldering!

Repeat Step 2 for the rest of the joints! Feel free to reposition the board as you go along!



Step 5: Tin the tip!

Once you're done soldering all joints, pat yourself on the back! Great job! :)

Now, make sure to melt about an inch of solder onto the tip of your soldering iron, then put it back in the holder WITHOUT wiping it off the brass sponge.

Step 6: Finishing steps

Turn OFF the soldering iron and WASH YOUR HANDS!

*this soldering guide was inspired by [this](#) guide