

Assembling your Version 1.3 Surface Mount Flagman

What's in the kit?

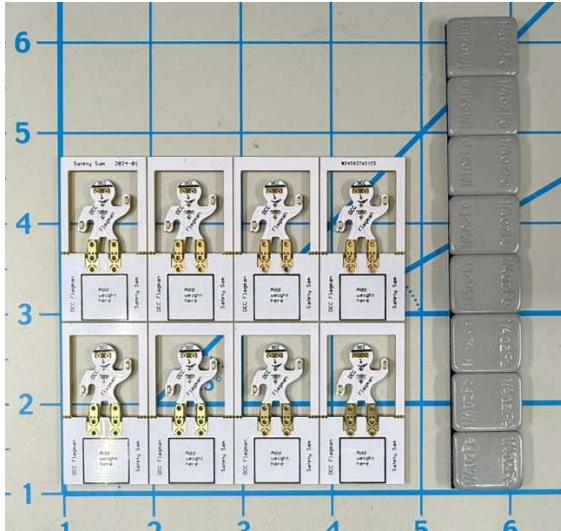


Figure 1- Red Flagman 8 Pack

Your kit will have 4 or 8 flagmen (a whole or half panel). Red flagmen have white bodies and Blue flagmen have green bodies. You will also have a stick of tire weights to add after assembling the flagmen to their bases.

Tools and Supplies

- Solder
- Flux if desired
- Good quality electronics soldering iron
- Wire stripper/cutter for 22 Ga wire
- 4" of 22Ga wire for each flagman
- A 6" piece of 1x2 is handy for making a jig

I made an assembly jig by marking the holes in the flagman's feet and drilling a clearance hole for 22Ga wire about 0.5" deep. I used a #65 bit in a rotary tool to drill holes that hold the wire but aren't tight.

Assembly

1. Snap the bodies off the bases, leaving the bases attached to one another. Layout the bases out on the job and insert 2" pieces of wire in the inner holes.



Figure 2- Jig with wires installed

2. Solder the wires in the holes, being sure you get a good fillet of solder. If you're using a variable power iron, turn it up to about 50W and 600-700 degrees. Wait 30 seconds for the joint to cool before moving anything.

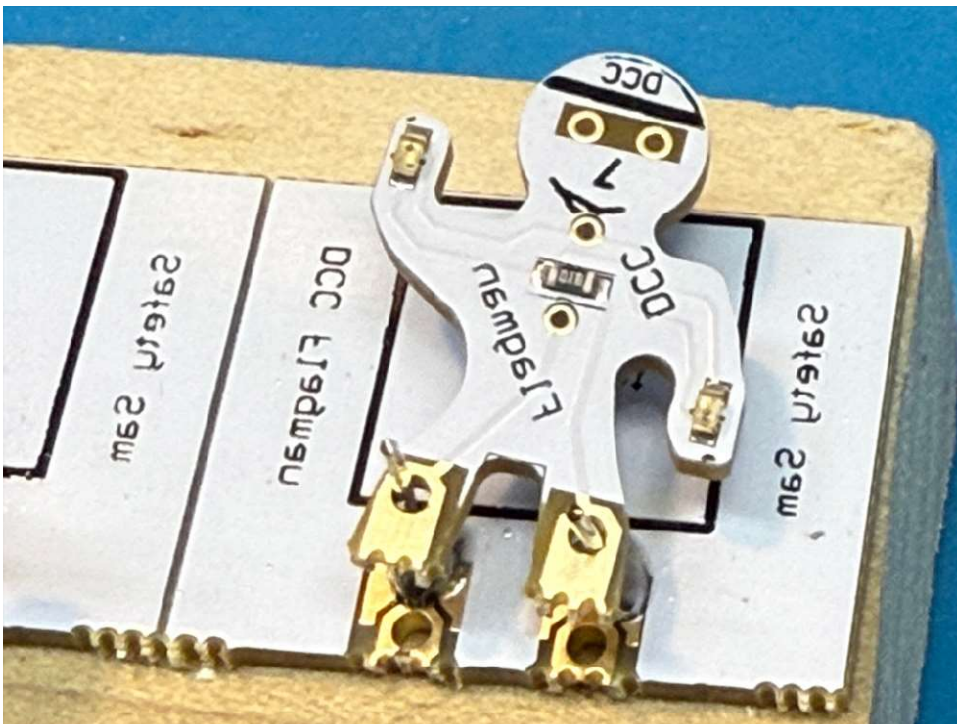


Figure 3- sliding the body onto the wires

- Slide the Flagman's body over the holes (direction depending on which way you want him facing)

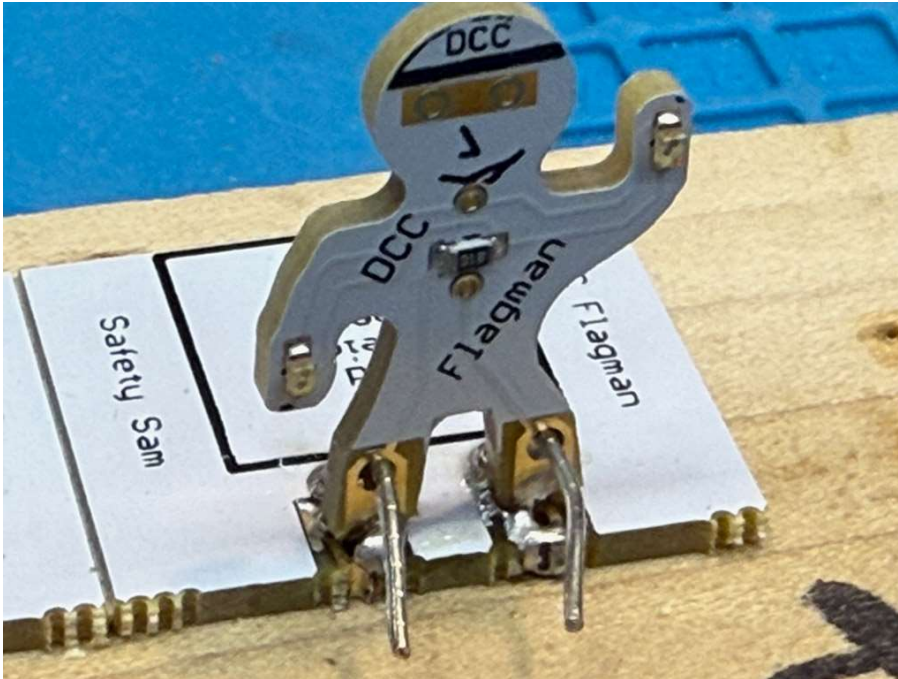


Figure 4-Flagman ready for solder

- Now bend the body up vertically holding the feet against the outer holes on the base.
- Solder the wire to the pads one leg at a time holding the Flagman steady. Turn him around and be sure the solder is flowing on the back side.

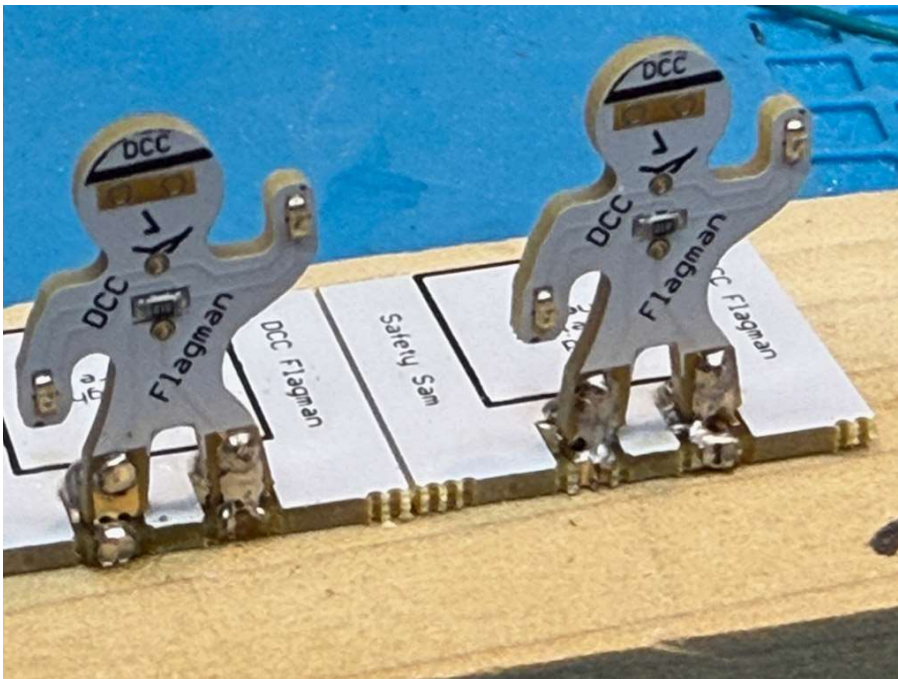


Figure 5 - Flagmen with fillet on base

6. Be sure to get a good fillet between the feet and the base.
7. Now test the flagmen by placing each flaggie across a track with DCC: both LEDs should light.
8. Clean the solder with an appropriate cleaner (I do this even with “safe” water based flux – 99% Isopropyl Alcohol works well.) Do this in a well-ventilated area, wear gloves and appropriate PPE.
9. Snap the flaggies apart, remove the covering from the adhesive on the weights and apply the weights.
10. Put your Flagmen to work!



Questions:

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