



Standard Operating Procedure

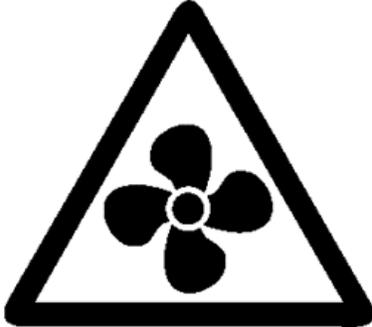
Soldering

Last updated: 6/29/2018



Hot Surface

Do not touch the iron's tip during or shortly after use. It is **HOT**.



Ventilation

Melted solder produces fumes that are noxious to humans. Ensure that the ventilation fans are on and that you are working close by the fans to ensure these fumes are taken away.

SOLDERING

- Tie back any loose hair. Keep loose clothing and jewelry away from the iron.
- Make sure your workspace is clean and you have a clear idea of what task you are performing.
- Lastly, please wear a pair of safety glasses while you are at the soldering station



- Ensure you turn on the exhaust fan before beginning your project.



- Set the soldering iron between 350 and 380°C and plug it into the surge protector
 - A blue LED will light, signifying the iron is hot.



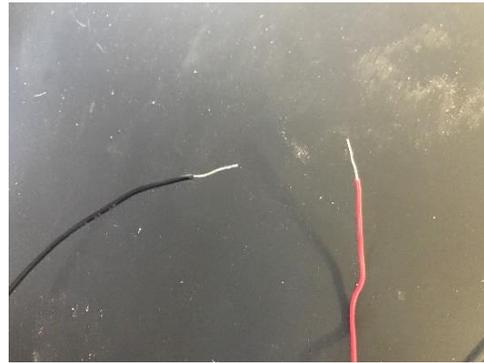
- Remove the iron from its holder and clean the hot tip on either the damp sponge or the brass coil.



- “Tin” the tip of the iron by placing a small amount of solder to the iron to allow for more thermal conductivity.
- **Ensure that you are working near the exhaust fan so that fumes are not inhaled!**



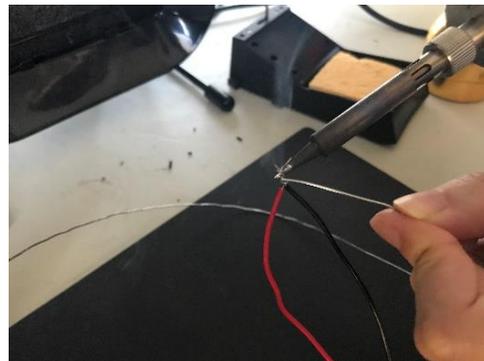
- In this example, we will be soldering two wires together.



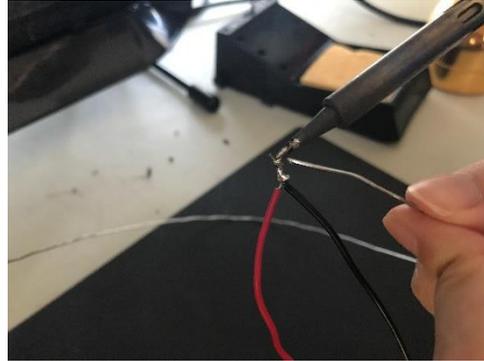
- Begin by twisting the two wires together, to create a temporary joint.



- Press the tip into the joint to heat the joint
 - When working with circuit boards, be careful that the tip does not touch nearby components, it can damage these components.
- Feed solder into the joint
 - Feeding solder into the joint instead of into the iron tip will provide better results.



- Ensure the joint has been soldered correctly and that there is a good connection between the two conductive material (in this case, the two wires)



- When finished, clean the tip with either the damp sponge or the brass coil.
- Then, “tin” the tip as you did when beginning your soldering project.
 - This will help ensure the longevity of the soldering tips



- Turn off the soldering iron by unplugging it from the surge protector.
- **Wash your hands with soap!!!**
 - **It is important to clean your hands after handling solder since it contains lead.**



FEEDBACK

Our SOP's are continuously evolving, and an important part of that is collecting your comments and suggestions for how we can improve these documents. Please let us know of any mistakes or confusion you experienced while using this document.

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