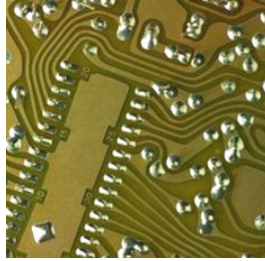


Requirement 2h: Solder a Broken Wire or Metal Object

Using Solder for Repairs

- Solder can be used to repair a wide variety of wire and metal objects, and many electrical and electronic devices
- Solder is easy to use, cools quickly, and is soft enough to be sanded smooth if needed



Solder Tools

- Tools used for soldering include soldering irons, solder, flux cleaners, stands, and clamps
- Always use lead-free solder
- Rosin—core solder is best for electronics and most general repairs and does not require flux cleaners



Basic Soldering Iron and Stand

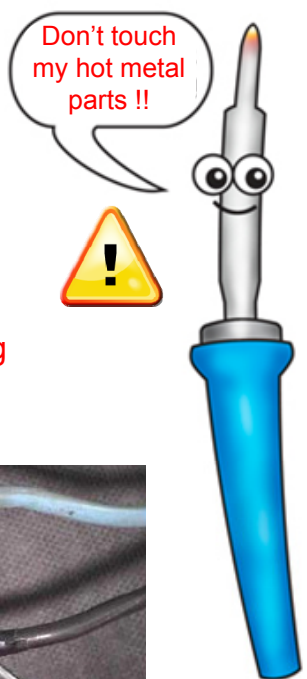


Professional Soldering Iron and Stand, with Clamps

Soldering a Broken Wire

- To repair a broken wire, twist the wire ends together tightly and use clamps to hold steady for soldering
- Plug in the soldering iron, lay it on stand, and give it time to heat up
- Test if iron is ready by touching solder to the hot tip – if it melts the iron is ready
- Hold the end of the solder on the wire connection and apply iron to melt solder into wire
- Don't hold the iron on the wire too long as you will melt the wire insulation
- Let solder cool and wrap with electrical tape or heat shrink tubing (tubing must be slid over wire before making connection)

Lead-Free Rosin-Core Solder



Don't touch wires, melting solder, or hot iron

Soldered Connection

Connection wrapped with Electrical Tape

