



# INTRODUCTION TO Soldering



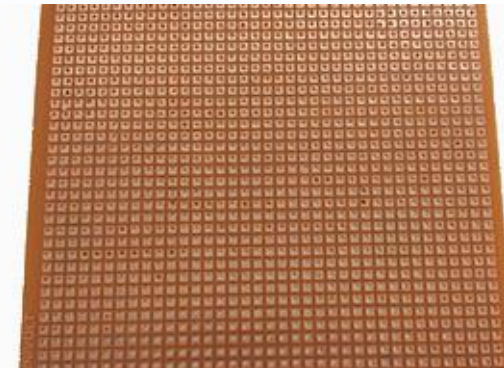
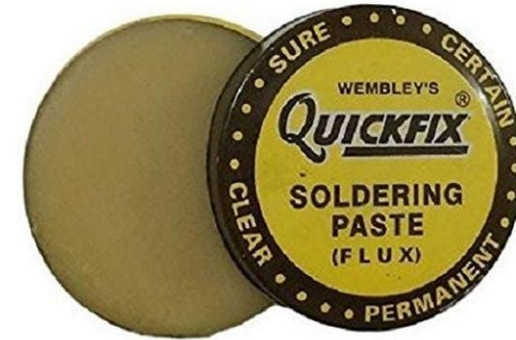
# Soldering

- **SOLDERING IRON**-A soldering iron is a hand tool used in soldering.. It provides heat to melt solder so that it can flow into the joint between two work pieces. Soldering irons are most often used for installation, repairs, and limited production work in electronics assembly. The temperature of the iron tip is typically 330° to 350°.
- **SOLDERING STATION**-A soldering station has temperature control and consists of an electrical power supply, control circuitry with provision for user adjustment of temperature and display, and a soldering iron or soldering head with a tip temperature sensor. The station will typically have a stand for the hot iron when not in use, and a wet sponge for cleaning.



# Soldering

- **SOLDER-SOLDER** is a metal alloy used to create a permanent bond between metal work pieces. It is an alloy of tin and lead. The melting point of most solder is around 188°.
- **SOLDER PASTE**-It is a material used to connect the components on the PCB. It is a mixture of flux and solder balls which has a very smooth consistency.
- **GENERAL PURPOSE PCB BOARD**-General-purpose PCB boards are widely used in making circuits. Its layer is coated with copper or aluminium and allows proper soldering without any short circuit.

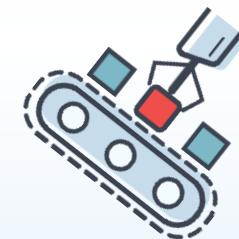
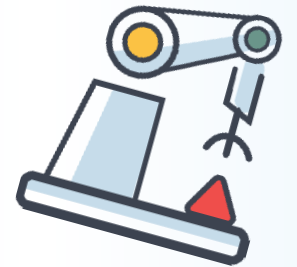
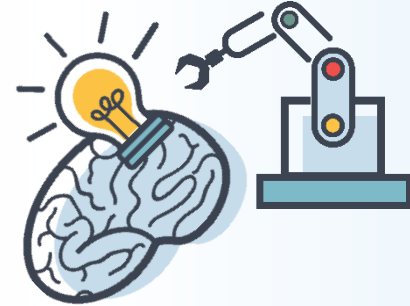
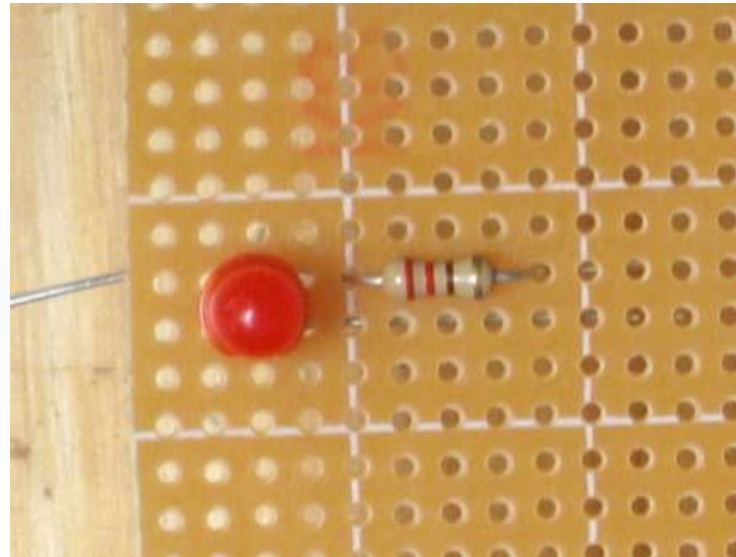




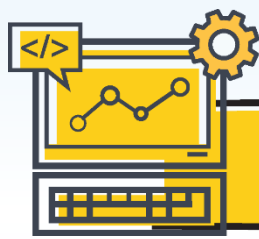
# Soldering Activity

## ACTIVITY

- Resources: PCB, LED, Resistor, PCB and Battery.
- Ask the participants to use the general-purpose PCB to make a circuit using the LED's and use the battery to provide power to the circuit.







# Analysis

- Use safety tools while doing the activity.
- Check whether the soldering iron is ready by inserting it in the soldering paste.
- To make the circuit by placing the components and the adding wires, prior to soldering.
- Use the conducting surface to do the soldering.
- Achieve pyramid shape in soldering.





**There is evidence that soldering was employed as early as 5,000 years ago in Mesopotamia.**



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