

# BASIC ELECTRONICS (26811)



**Dipali Nandy**  
**Instructor (Tech/Ent)**  
**Dhaka Polytechnic Institute**  
**Tejgaon ,Dhaka-1208**

# TODAY'S TOPIC

## **CHAPTER 1** SOLDERING AND COLOR CODE

- Define soldering.
- List the materials of soldering.
- Describe the steps of soldering.
- Mention the properties of a good soldering joint.

## 1.1 Define soldering

Soldering is a process of joining two or more metal components together using a filler metal called solder. It involves heating the solder to its melting point and applying it to the joint, where it solidifies and creates a strong and permanent bond between the metals. Soldering is commonly used in electronics, plumbing, jewelry making, and various other industries where metal connections need to be made. The solder acts as a bridge, allowing electrical current or heat to pass between the joined components. It is a fundamental technique in circuit board assembly, as it enables the connection of electronic components to create functional circuits.

## **There are two types of soldering techniques**

1. Bath technique
2. Wave techniques

## Bath technique

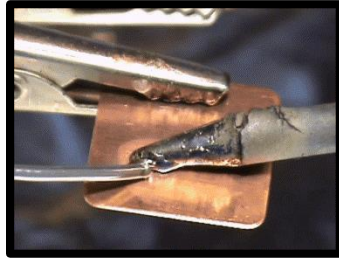


## Wave technique

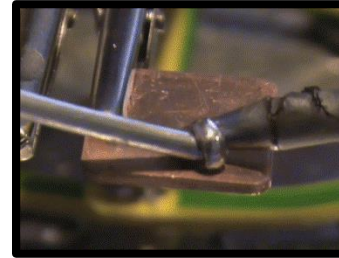


## There are two types of solder

- Resin core solder
- Solder without Resin core



Resin core solder



Solder without  
Resin core

## 1.2 List the materials of Soldering

- Soldering Iron
- Soldering tag and Solder
- Resin
- PCB
- Copper wire and related electronics devices
- De-Soldering Tools





## 1.3 Describe the steps of soldering.

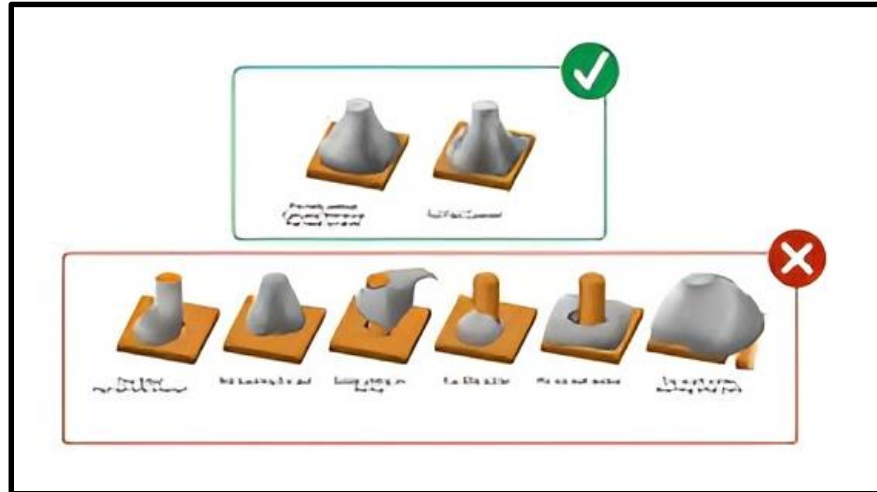
- Primary Preposition
- Hit up Iron
- Cleaning the Soldering  
Iron Tip and place of joint
- Applying Solder
- Joint Inspection



## 1.4 Mention the properties of a good soldering joint.

- Smooth.
- Bright.
- Shiny.
- Clean.
- Concave solder fillet.
- Good wetting.
- The end of the wire or lead is covered with solder.

# The proper soldering joint.



**Thank You**