



Course 1 : Electronics for Beginners



Chapter1 : Introduction to Electronics

1 / What is Electronics?

- Study of electricity and its application in circuits and systems.
- Overview of analog vs. digital electronics.

2/ Basic Concepts:

- Voltage (V), Current (I), and Resistance (R).
- Ohm's Law: $V=IR$

3/ Components:

- Resistors: Fixed, variable.
- Capacitors: Storage of energy, types (ceramic, electrolytic).
- Diodes: Allow current to flow in one direction.
- Power sources: Batteries, DC power supplies.

4/ Tools:

1. Multimeter: Measure voltage, current, and resistance.
2. Breadboard: Build and test circuits without soldering.
3. Wires and connectors.