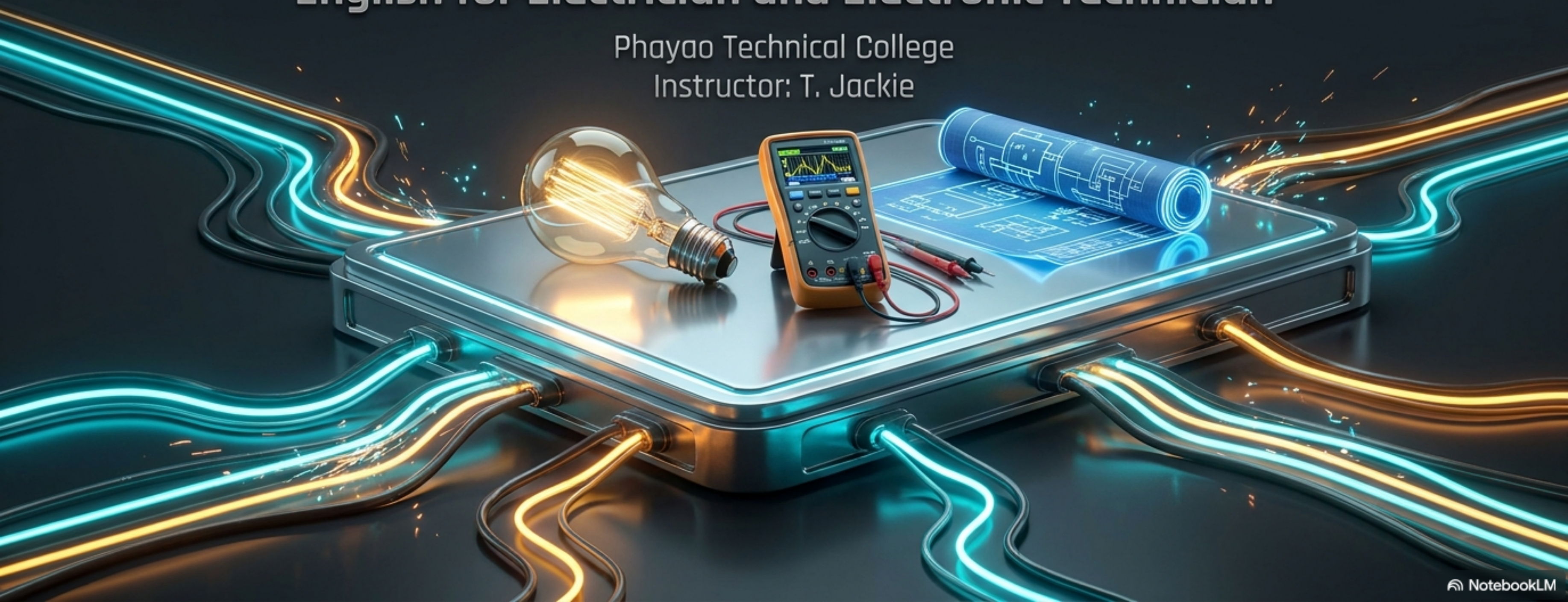


Basic English Vocabularies for Electrician and Electronic Technician

English for Electrician and Electronic Technician

Phayao Technical College
Instructor: T. Jackie



Voltage (V) / Volts

The electrical potential difference or 'pressure' pushing the current.

Power (P) / Watts (W)

The rate at which electrical energy is converted into work.

Current (I) / Amperes (Amps)

The flow or quantity of electricity moving through the conductor.

Resistance (R) / Ohms (Ω)

The opposition to the flow of electricity.





Direct Current (DC)

- Flows in ONE direction.
- Source: Batteries, Solar Cells.

Alternating Current (AC)

- Reverses direction periodically.
- Source: Power Grid, Wall Outlets.

Insulation

The material (often PVC) surrounding the conductor to prevent shocks and short circuits.

Earth / Ground Wire

The safety wire (often bare or green/yellow) used to carry fault current directly to the ground.

Jacket (Sheath):

The tough outer protective layer encasing all internal wires.

Conductor:

The metal (usually copper) that carries the electric current.



To Grip & Twist

Lineman's Pliers: Used to bend, grip, cut, or twist wires together.



To Cut

Side Cutters (Diagonal Cutters): Used exclusively for slicing through wires.



To Remove Insulation

Wire Strippers: Used to pull the plastic covering off conductors.



To Turn

Screwdriver (Phillips & Flathead): Used to tighten or loosen screws.

Multi-function Tester (Multimeter)

A combined instrument used to measure voltage, current, and resistance.

Fish Tape

A long, flexible metal instrument used to pull electrical wires through conduits and walls.



Hammer Drill

A power machine that hits hard substances (like cement) repeatedly to break to break them apart and bore holes.

Resistor:

Reduces and limits the flow of current in a circuit.

Capacitor:

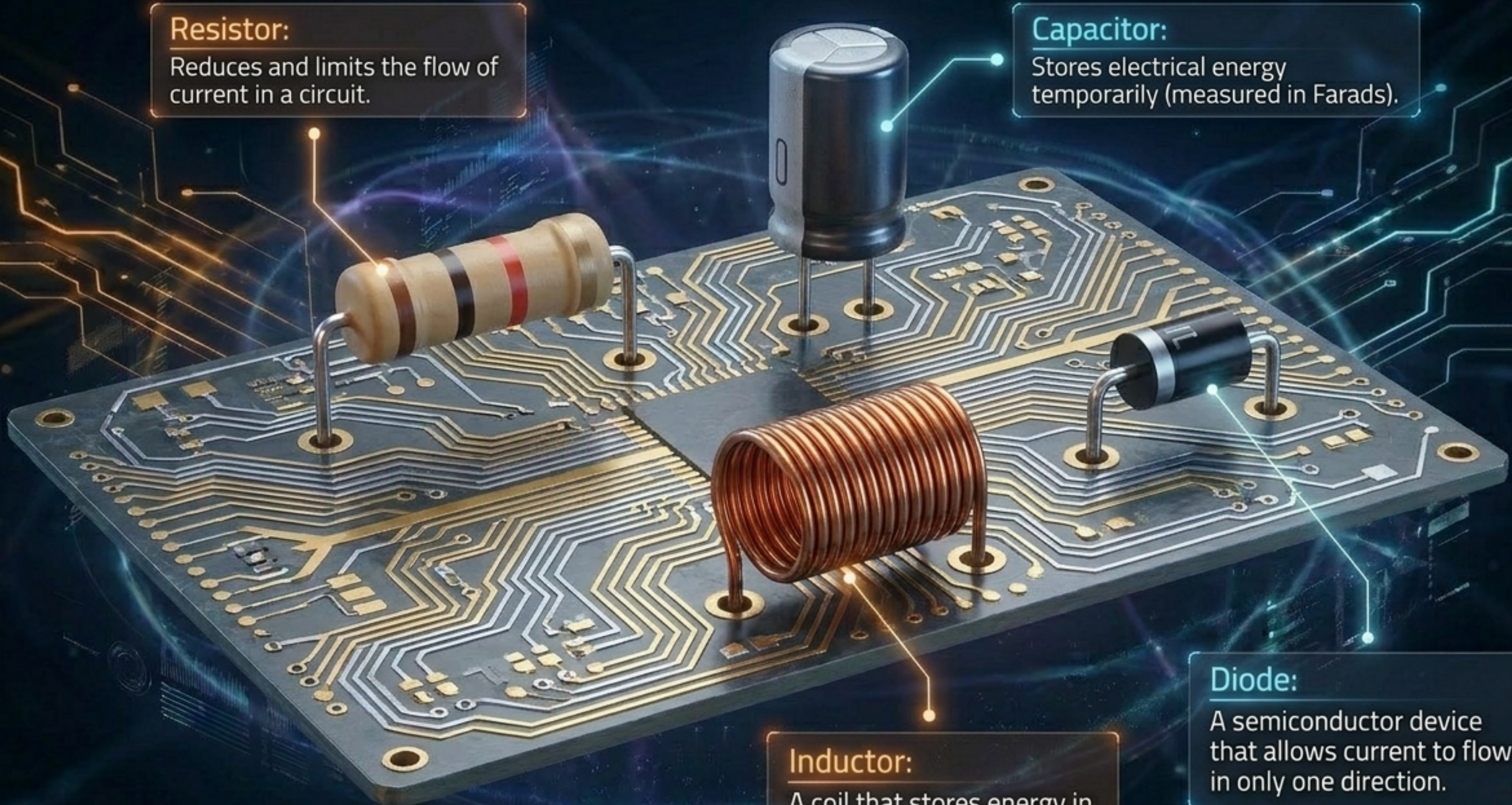
Stores electrical energy temporarily (measured in Farads).

Diode:

A semiconductor device that allows current to flow in only one direction.

Inductor:

A coil that stores energy in a magnetic field.



Consumer Unit (Main Switchboard)

The central distribution board where circuits originate in a building.

Circuit Breaker

An automatic protective device that opens a circuit to stop flow during an overload or fault.


Switch

A functional device that manually opens or closes a circuit.

Relay

An electrically operated switch used for automatic control.





The image features a central 3D rendered figure of a worker wearing a full set of personal protective equipment (PPE). The worker is standing on a metallic, gridded platform that has glowing orange and yellow hazard stripes around its perimeter. The background is a dark, futuristic space filled with glowing blue and orange circuit-like patterns. Four callout boxes with glowing borders point to specific pieces of PPE: a hard hat, safety glasses, electrical hot gloves, and an arc flash suit. The worker's PPE includes an orange hard hat with a clear face shield, safety glasses, a high-visibility orange and blue suit with reflective silver stripes, and bright yellow-green gloves. The worker is also wearing black safety boots.

Hard Hat:

A strong plastic helmet that protects the head from falling objects.

Safety Glasses:

Clear, thick plastic shields protecting eyes from electrical flashes and debris.

Electrical Hot Gloves:

Thick rubber gloves designed specifically to prevent electric shock.

Arc Flash Suit (40 Cal Suit):

Heavy-duty, flame-resistant clothing that acts as a final defense against electrical explosions and fires.

Slang

Megger



Insulation Resistance Tester:

Applies high voltage to verify cable insulation integrity.

Pumpkin



Non-Contact Voltage Sensor:

Beeps and flashes near AC voltage; named for its bright orange color.

Tweaker



Small Flathead Screwdriver:

Used for fine adjustments on electronic terminals.

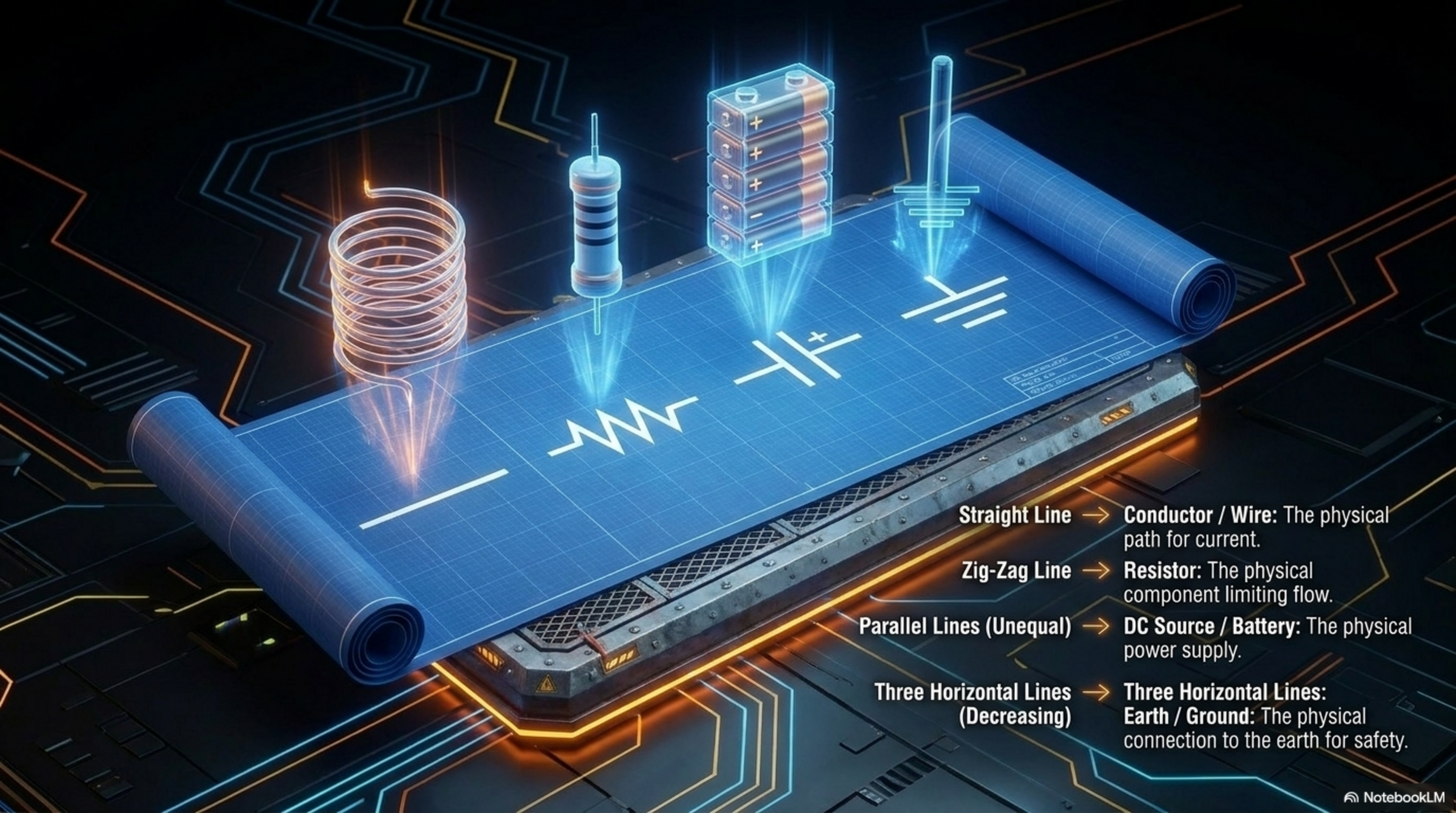
Turn On /
Turn Off



Energize / De-energize:

The formal terms for applying or removing electrical power.

Formal
English



Straight Line → **Conductor / Wire:** The physical path for current.

Zig-Zag Line → **Resistor:** The physical component limiting flow.

Parallel Lines (Unequal) → **DC Source / Battery:** The physical power supply.

Three Horizontal Lines (Decreasing) → **Three Horizontal Lines: Earth / Ground:** The physical connection to the earth for safety.

1. Assess: Read the Schematic and identify the Components.

2. Protect: De-energize the system and wear PPE.

4. Test: Verify the circuit safety using a Multimeter.

3. Execute: Use the correct Hand Tools to cut, strip, and twist Conductors.



The Ultimate Rule: Safe Isolation

Always check to ensure no electricity is present before working. “Test before you touch.”

End of Lesson

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