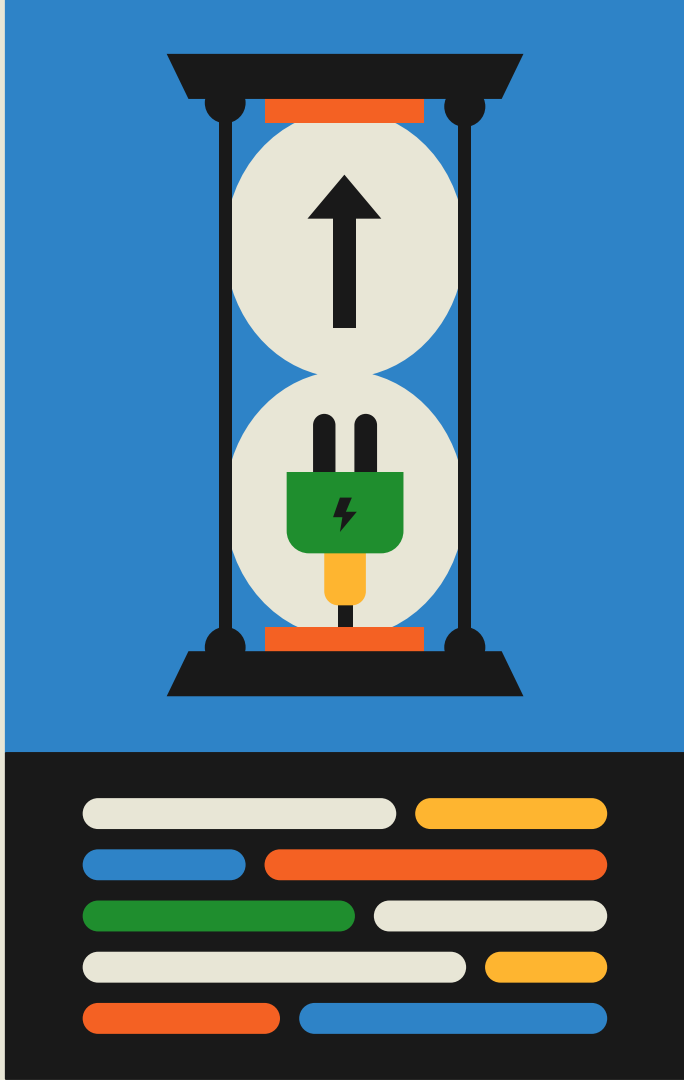
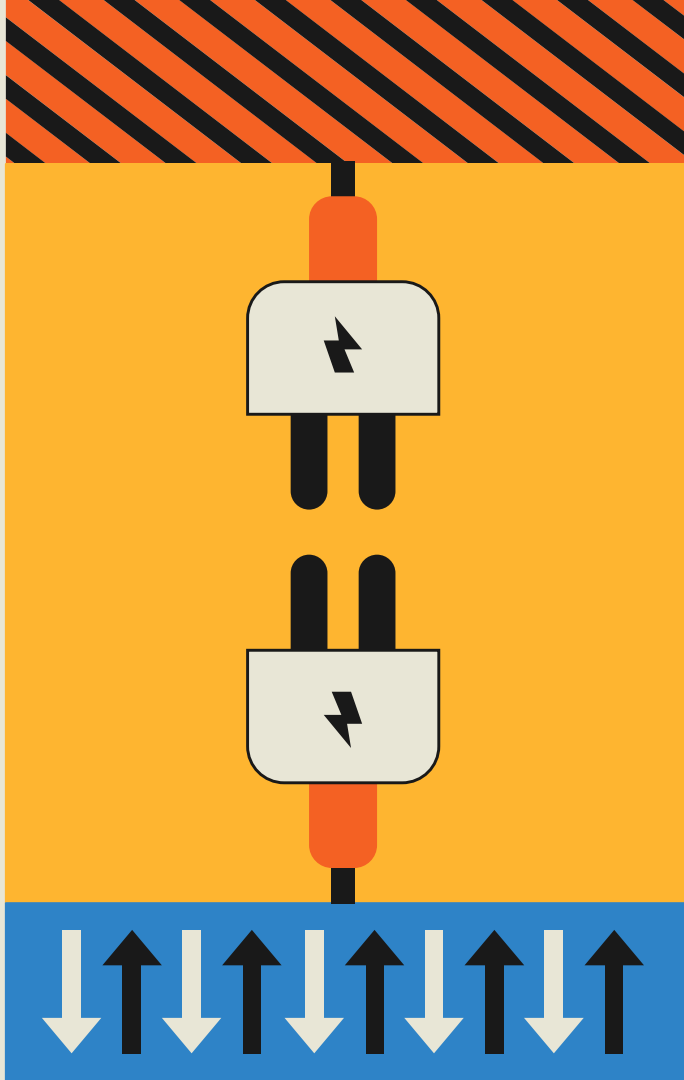
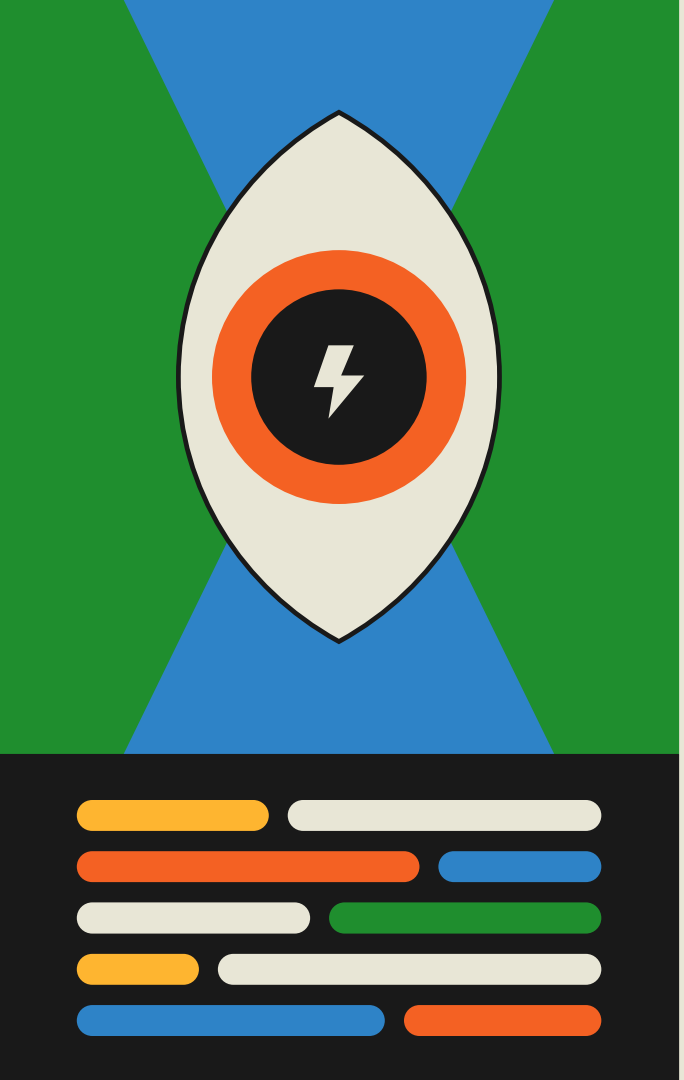
ELECTRONIC HAND TOOLS AND EQUIPMENT



Basic Electronic Hand Tools and Equipment





Common Tools

Soldering Iron/Pencil

- used to join two or more metal conductors with the support of soldering lead melted around it.

Desoldering Iron/Pencil

- used to unsoldered unwanted parts or component in the circuit with the support of soldering pencil

Flat-head Screwdriver

- used to drive a slotted screw head

Philips-head screwdriver

- Also called the crosshead screwdriver; used to loosen or tighten crosshead screws

Side Cutter Pliers

- is used for cutting or trimming of connecting wires or terminal leads in the circuit board

Long-nose Pliers

- used for holding, bending and stretching the lead of electronics component or connecting wire

Hex driver

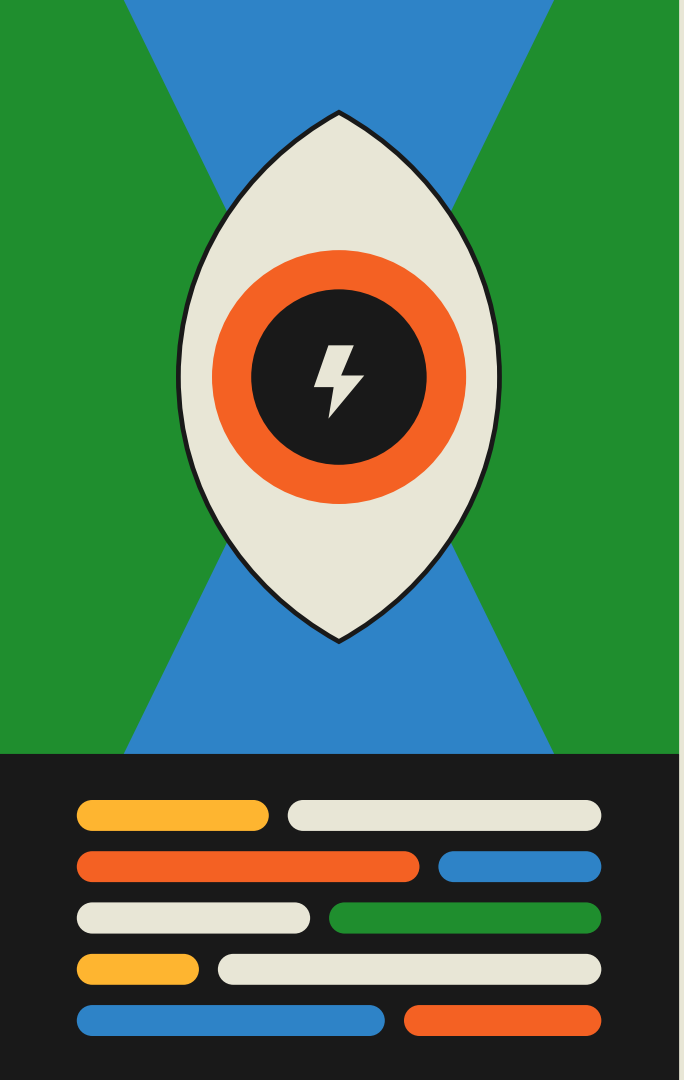
- sometimes called a nut driver, is used to tighten nuts in the same way that a screwdriver tightens screws.

Wire Stripper

- is a portable handheld tool used by workers, especially electricians, for removing the protective coating of an electric wire

Overhead Flashlight

- is used to light up areas that you cannot see well.



Basic Electronic Equipment

Multimeter / Multi-tester

- are tools used to measure current, voltage and resistance. The primary difference between the two is the display, an analog multimeter - uses a needle to show the value, while a digital multimeter - will show the results as numbers on a screen.

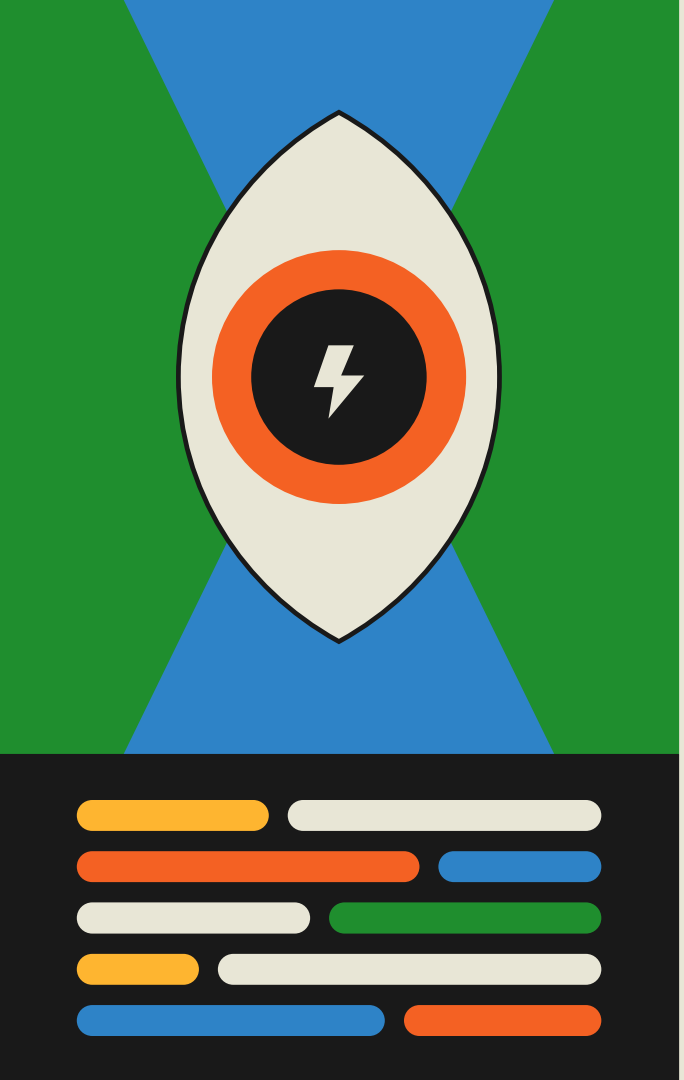

DIGITAL MULTIMETER
-1.8.8.8
IEC61010-1
2000 Counts/Autorange
FUNC.
HOLD
MAX.
Ω
Hz
µA≈
~V
mA≈
=V
A≈
OFF
OFF
CE
DURATOOL
D03124
10A
600V CAT III
COM
VΩHz
mAµA
600V MAX
10A/600V~
MAX
250mA/600V~
MAX
600V CAT III
10A MAX

Portable Electric Handrill

- is used for boring hole/s in the plastics chassis or metal chassis

Multi-Volts Power Supply

- is used to supply the desired direct current voltages in the circuit



Occupational Health and Safety

- is a planned system about ensuring the safety, health and welfare of people at work.
- OSH is about knowing and controlling hazards and risks at the workplace.

- These hazards and risks may cause death, disability, injury, sickness, or great discomfort and inefficiency among the workers.

There are three steps used to manage health and safety at work:

1. Spot the Hazard (Hazard Identification)
- What is unsafe?

2. Assess the Risk (Risk Assessment)

- What could happen?

3. Make the Changes (Risk Control)

- Provide solutions to control or eliminate the hazard.

Hazard

- is anything that can cause injury, illness, property damage or loss of material, e.g. electricity, chemicals, working up a ladder, noise, a keyboard, a bully at work or stress.

Risk

- is the chance or probability that a person will be harmed or experience an adverse health effect once to a hazard.

Types of Workplace Hazards

1. Safety Hazards – something that can cause immediate physical injury or damage.

Types of Workplace Hazards

2. Health Hazards – something that can cause illness or disease over time

a. Inappropriate and Defective Tools

- Electric tools should be operated within their design capabilities and limitations.

b. Unguarded Machines or Mechanical Hazard

Machines help get the job done but can also be dangerous if not used properly. Read the owner's manual carefully.

c. Electrical Hazards

- Follow electrical safety guidelines to prevent electrical fires, injuries, and fatalities in the home and the workplace.