Electrical Supplies and Materials

Electrical materials are developed and constructed for a special purpose such as to:

1. control the flow of current in an electrical circuit.
2. carry electrical current from the source to the load or current consuming apparatus.
3. hold and secure wires to its fixtures inside and outside houses and buildings; and
4. protect the houses, buildings, appliances and instruments from any destruction and damage.

The following are the most commonly used *electrical materials*.

MATERIALS AND DESCRIPTION	PICTURES
Convenience outlet A device that acts as a convenient source of electrical energy for current consuming appliances. It is where the male plug of an appliance is inserted and usually fastened on the wall or connected in an extension cord. It maybe single, duplex, triplex or multiplex and could be surface type or flush type.	 Surface type (duplex)  Flush type (duplex)
Male plug A device inserted to a convenience outlet to conduct electric current. A flat cord is attached to it on one end and the other end is connected to a current consuming instrument or appliance.	 Male plugs
Lamp holders A device that holds and protect the lamp and are also called as —Lamp Sockets/Receptacles‖. These come in many designs and sizes. They are classified as flush, hanging (weatherproof/chain) and surface types.	 Flush type  Hanging (chain)  Surface type  Hanging (weather)
Switch A device that connects and disconnects the flow of electric current in a circuit. There are many shapes, designs, and types and they are classified as hanging, flush, and surface types.	 Surface type  Flush type  Hanging type

Fuse A circuit protective device that automatically blows and cut the current when and overload or short circuit happens.	 Knife blade Cartridge Plug type
Circuit Breaker A protective device used to automatically blows and cuts the current when trouble in the circuit such as short circuit or overload occurs.	 Circuit breaker
Junction Box An octagonal shaped electrical material where the connections or joints of wires are being done. It is also where the flush type lamp holder is attached. This could be made of metal or plastic (PVC) *Polyvinylchloride.*	 Plastic  Metal
Utility Box A rectangular shaped metallic or plastic (PVC) material in which flush type convenience outlet and switch are attached.	 METAL PLASTIC
Flat Cord Is a duplex stranded wire used for temporary wiring installation and commonly used in extension cord assembly. It comes in a roll of 150 meters and with sizes of gauge # 18 and gauge # 16 awg (American wire gauge).	 Flat cord
Electrical Wire/Conductor An electrical material that could be: a. **Stranded** wire which is made of multiple strands joined together to make a single wire. b. **Solid** wire is made of a single strand of copper or aluminum wire. These are used in wiring installation inside and outside the buildings.	 a. Stranded wire  b. Solid wire

Conduits/Pipes An electrical material used as the passage of wires for protection and insulation. These could be rigid metallic, flexible metallic conduit (FMC), rigid nonmetallic (PVC), and flexible non-metallic or corrugated plastic conduit (CPC)	 Metallic conduit  Flexible Non-metallic conduit or corrugated plastic conduit (CPC)  Rigid Non-metallic conduit (PVC)
Clamps An electrical material used to hold and anchor electrical conduits in its proper position.	 Metal clamp  Plastic clamp
Connectors Used to attach metallic or non-metallic conduit to the junction or utility boxes.	 Metal connector Flexible non-metallic connector