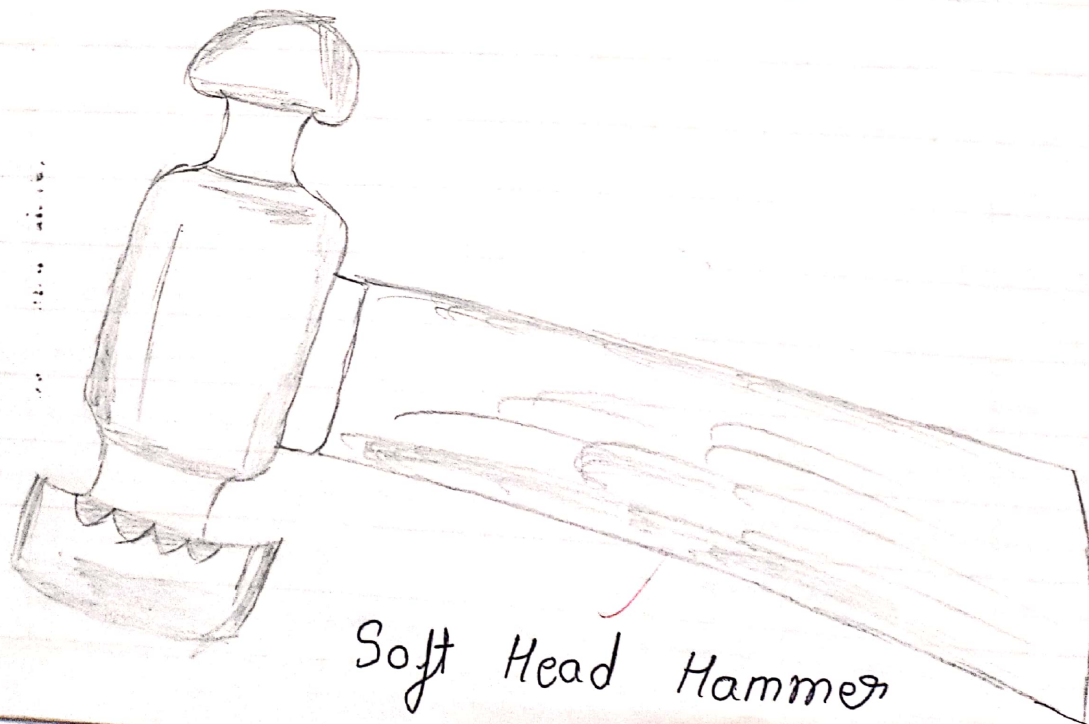


Hammer

Fig. Name
not mention



Mallet Hammer



Soft Head Hammer

TOOLS

Objectives :- Identification and familiarization with commonly used tools in electronic workshop.

1. Hammer ↗

↘ It is generally used to fix as hit while engineer daily electronics work. There are two types of hammer which are used in electronics field.

2. Mallet Hammer ↗

↘ A mallet is a tool used for imparting force on breakable components. It is basically made up of wood or rubber.

3. Soft Head Hammer ↗

↘ This hammer is made up of soft materials such as brass, wood, rubber, plastic and raw hide.

4. Spring loaded Wire Cutter ↗

↘ It is a hand tool which are used to cut a different variety of wire.

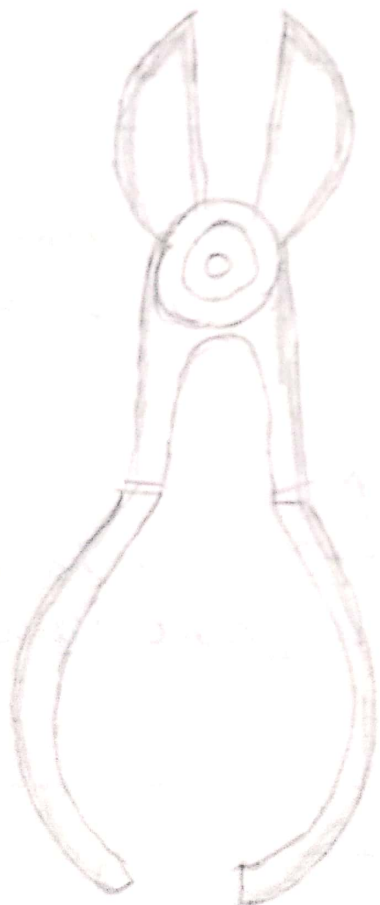
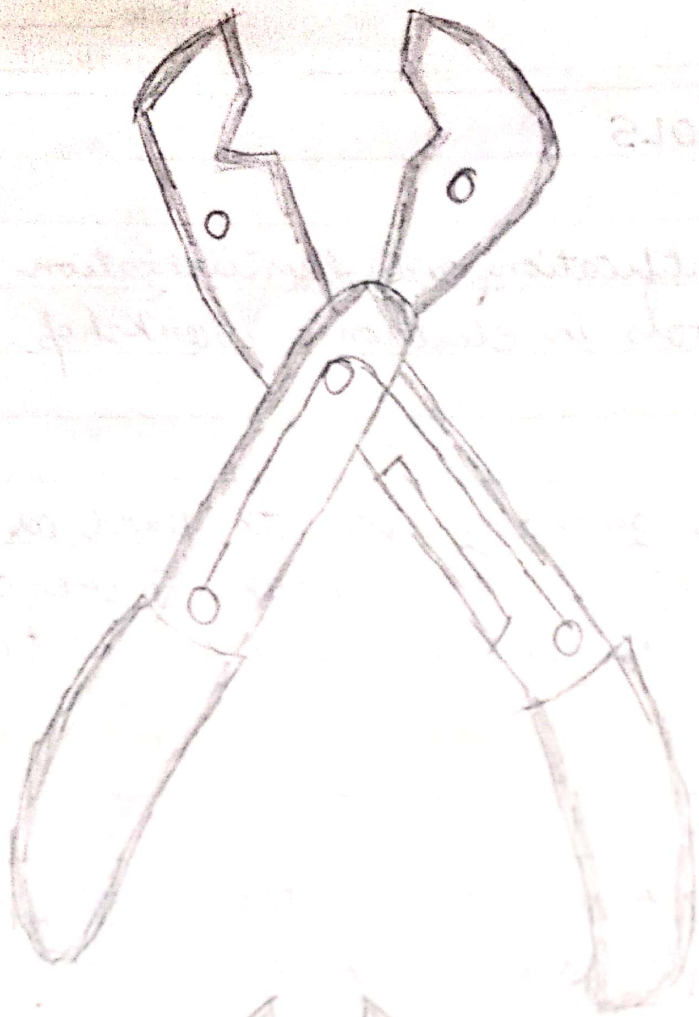


fig name
not mention



Soldering Iron

5. Heavy duty Wire Cutter ↴

↴ It is the type of hand tool which are used to cut the heavy wire.

6. Wire Stripper ↴

↴ A wire stripper is a small, hand-held device used to strip the electrical insulation from electric wires.

6. Combination Pliers ↴

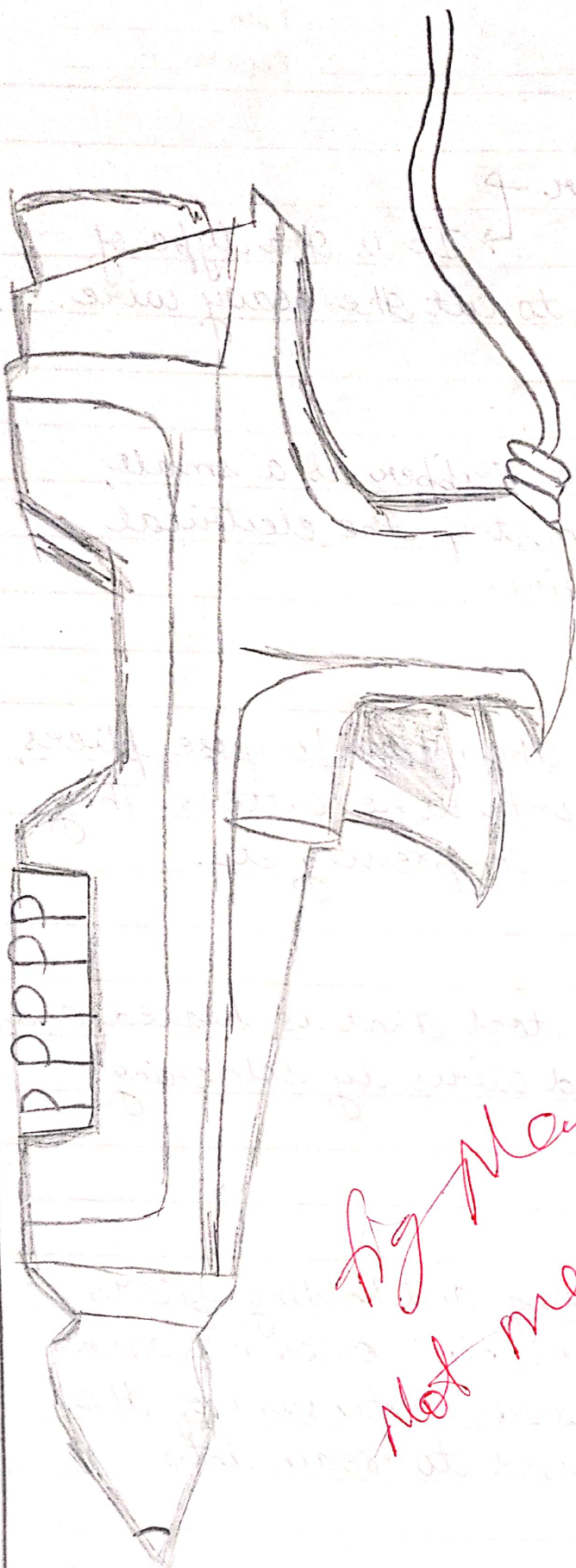
↴ It is the multi purpose pliers, combining gripping, jaws with wire cutters. They can be used for gripping, compressing etc.

7. Soldering Iron ↴

↴ It is a tool that is heated and used for joining metals and wires by soldering them.

8. Nose Pliers ↴

↴ It is a cutting and holding pliers used by jewellery designers, electronics network engineers. It has a long narrow extensions of the gripping faces which are used to reach into narrow spaces.



Glue Gun

*Ag Name
Not mention*



Screwdriver

9. Crimping tools ↴

↪ It is used to deform the material and create the connection. Crimping tools is commonly used in electrical work, to attach wire together or wire to other connectors.

10. Glue Gun ↴

↪ It is a usually gun shaped electric tool used for melting and applying sticks of adhesive. It is also used to keep loose wires neatly stuck etc.

11. Drill Machine ↴

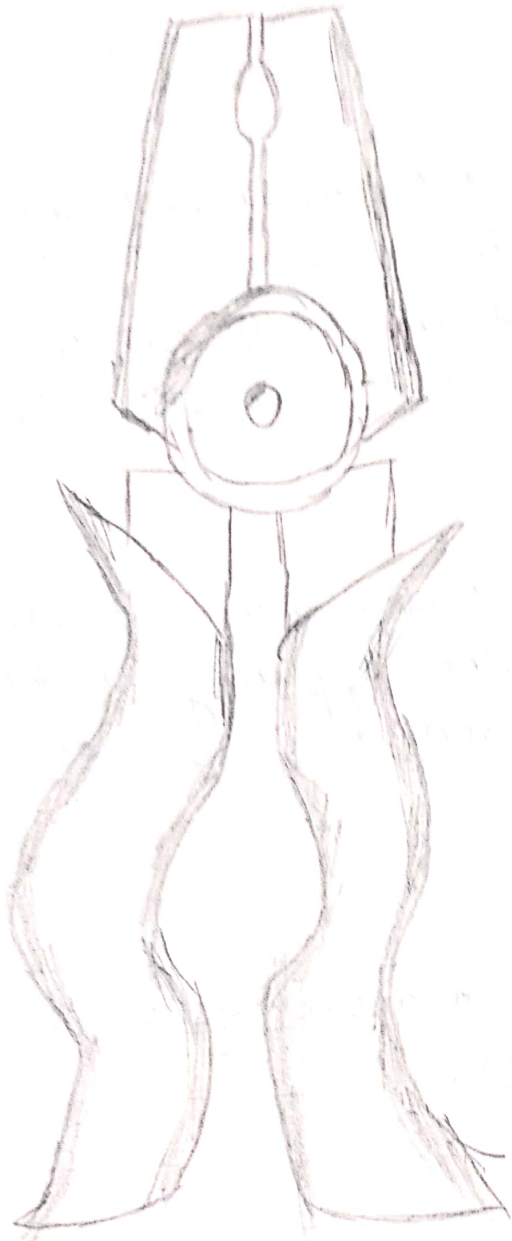
↪ It is a device for producing holes in hard substances.

12. Multimeter ↴

↪ A multimeter is a measuring instrument that can measures multiple electrical properties.

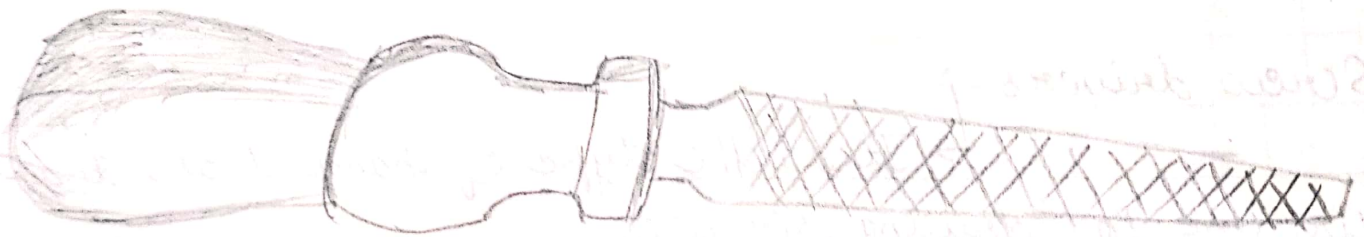
13. Screw drivers ↴

↪ It is the type of hand tools that we use for driving screws.



Combination Plier

Fig. Name
not mention



Files

Experiment :

Date _____
Page No. 4

14. Watch maker screw driver ↯

↯ It is generally made up of stainless steel. watch maker screw driver handles will have a hexagonal end piece. This is to ensure that they do not fall when put down on the bench.

15. LN Key ↯

↯ It is an L-shaped tool consists of a rod having a hexagonal cross section used to turn a screw with the hexagonal recess in the head.

16. Files ↯

↯ A file is a tool used to remove fine amounts of material from a work piece. It is used for smoothing inside holes ~~area~~ and circular grooves and for sharpening certain kinds of saw.

17. Small Hock saw ↯

↯ It is also known as junior hock saw. It can also be used to cut various other cut plastic pipes.

Experiment :

Date _____
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18. Tweezer ↗

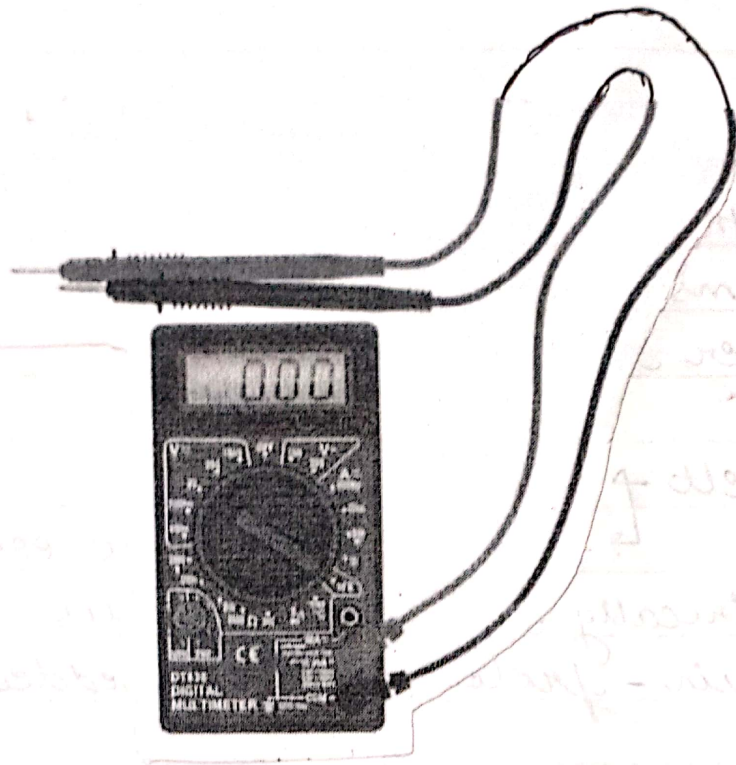
↘ Tweezers are an extension of our fingers and they allow us to grab, grab, remove or hold items that are too small or delicate, for our fingers to manipulate.

19. Antistatic belt ↗

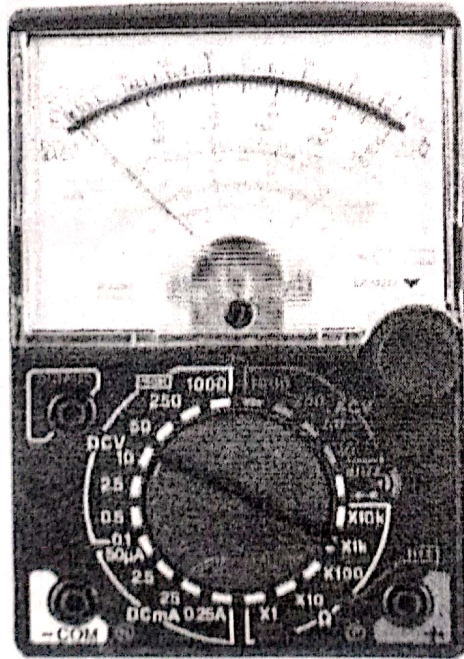
↘ Antistatic belt are equipped with an electrically conductive, static inhibitor that is woven - protected and embedded in the belt.

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CLASSMATE



Digital Multimeter



Analog Multimeter

Experiment :

Date _____
Page No. _____

Electronic Instrument

1. Multimeter

* Digital Multimeter

A digital multimeter is used for measuring various electrical values which include resistance, current and voltage. A multimeter is used for measuring AC voltage and DC currents, DC voltages and current. Resistance or temperatures and capacitors that depend on the functionality and design.

The display screen of a digital multimeter shows measured values including the resistance or voltage. The multimeter generally have an illuminated and digital version which is known for having the highest readability. Generally the multimeter operates with the main voltage of 330V which is essential for it.

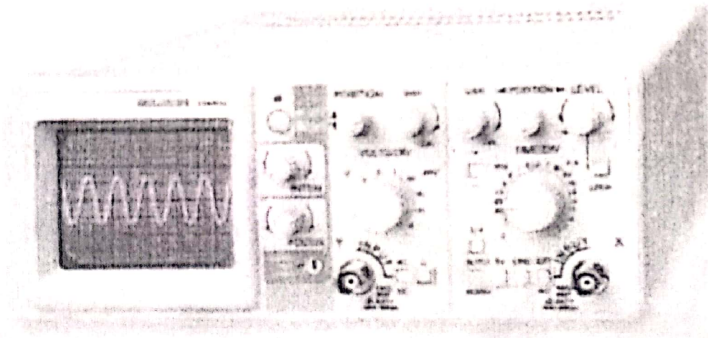
* Analog Multimeter

An analog multimeter is a PMMC meter. It works based on the deflection galvanometer principle. It consists of a needle to indicate the measured value on the scale. A coil moves in a magnetic when current passes through to the coil. During the flow of current through the coil, a

Electronic Instrument

1. Multimeter

2. Cathode ray oscilloscope



CRO

Experiment :

Date _____

Page No. _____

deflecting torque gets produced due to which the coil rotates at some angle and the pointer moves over a graduated scale. A pair of hairsprings is attached to the moving spindle to provide the controlling torque. In a multimeter, the galvanometer is a left-zero type instrument, needle starts to the extreme left of the scale from where the scale begins with zero. A sudden change in the signal can be detected by analog multimeter more swiftly than a digital multimeter.

2. CRO - Cathode Ray Oscilloscope

It is used to obtain waveforms when the different input signals are given. In the early days, it is called as an oscillograph. The oscillograph observes the changes in the electrical signal over time, thus the voltage and time describe a shape and it is continuously grabbed beside a scale. The CRO's working principle depends upon electron ray movement because of the electrostatic force. Once an electron ray hits a phosphor face, then it makes a bright spot on it. A cathode ray oscilloscope applies the electrostatic energy on the electron ray from two vertical trays.

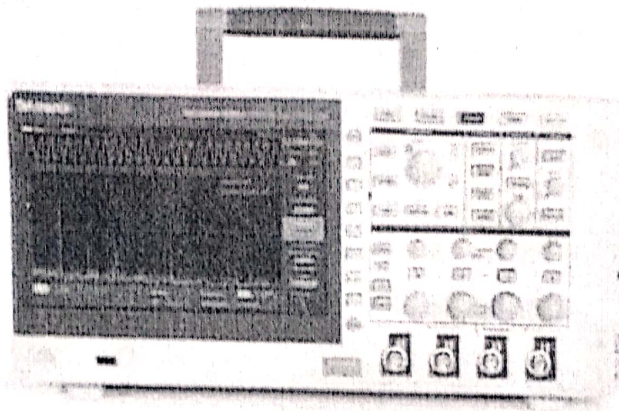
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AFO - Audio frequency Oscilloscope

A microphone converts sounds waves into electrical signals of voltage over time that can be measured and observed on an oscilloscope. Different sounds produce electrical signals on an oscilloscope with unique characteristics that can be measured.



AFO

... provide the
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