Physics Class Notes

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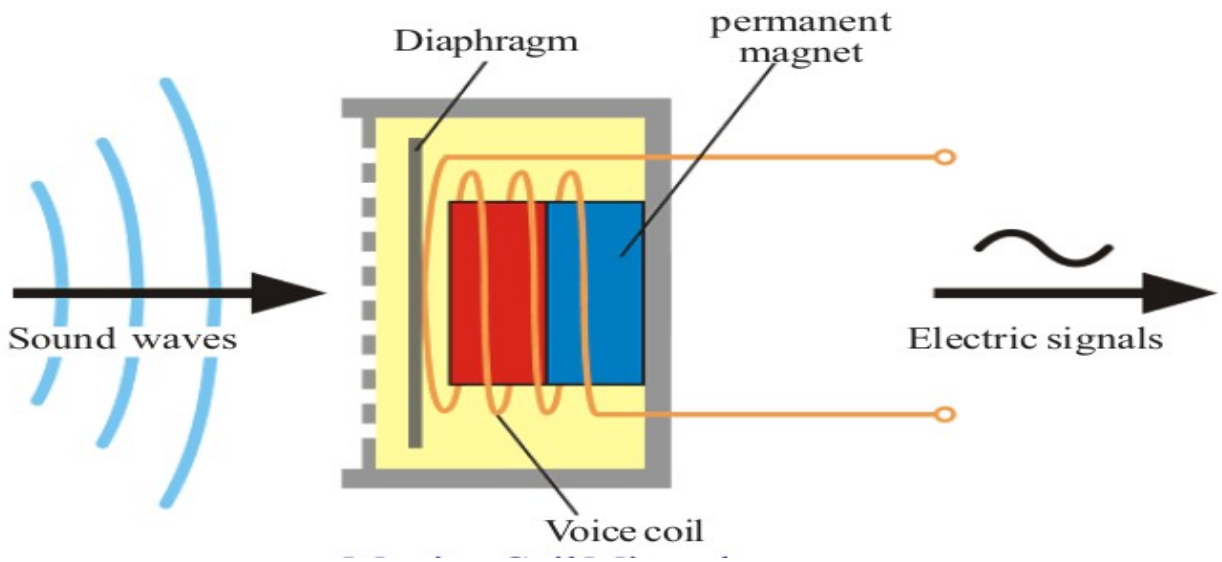
Moving Coil Microphone

Moving coil microphone is device that converts mechanical energy(sound energy) into electrical energy. It works on electromagnetic induction.



- **Which are the main parts of a moving coil microphone?**
  Ans: Voice coil, Diaphragm, Permanent magnet.
- **Which is the moving part in it?**
  Ans: Diaphragm
- **If a sound is produced in front of a movable diaphragm, what will happen to the diaphragm?**
  Ans: The diaphragm vibrates.
- **What happens to the voice coil then?**
  Ans: The voice coil also vibrates.
- **What will be the result?**
  Ans: Electrical signals corresponding to the sound waves are generated in the voice coil.

Working

The voice coil is situated in a magnetic field. The diaphragm connected to the voice coil vibrates in accordance with the sound waves falling on it. As a result, electrical signals corresponding to the sound waves are generated in the voice coil.
The weak signals obtained from the microphone are strengthened by an amplifier and sent to the loudspeaker. The loudspeaker reproduces the original sound.