

Loudspeaker Basics

A loudspeaker is where the electrical signal becomes sound.

It breaks down into four subsystems:

1. **Motor Magnet and Voice Coil.** When an electrical signal is applied, the magnetic fields interact and create mechanical movement.
2. **Diaphragm Cone and Dust Cap.** The cone couples to the air to create sound waves, according to the movement of the motor, to create sound waves and audible sound.
3. **Suspension Spider and Surround.** Keep the voice coil centered in the magnet's gap, and returns the cone to a neutral position after moving.
4. **Frame.** The speaker basket provides the rigid chassis that precisely holds everything together, and often acts as a heat sink for the voice coil.

