



SPEAKERS

Speakers operate by moving a mass of air in such a way that it creates audible sound. Typically, speakers convert electrical impulses into sound. All speakers are either passive or powered. Most speakers that are commercially available are passive. Passive speakers do not have a built-in amplifier and must be connected to an amplifier using a regular speaker wire. Powered speakers are also known as self-powered or active speakers. They feature built-in amplifiers for high and/or low frequencies. Powered speakers often require heavy enclosures, making them less mobile and functional as passive speakers. They are sometimes less reliable since they have built-in electronic components that require external power sources.

TYPES OF SPEAKERS

Exercise:

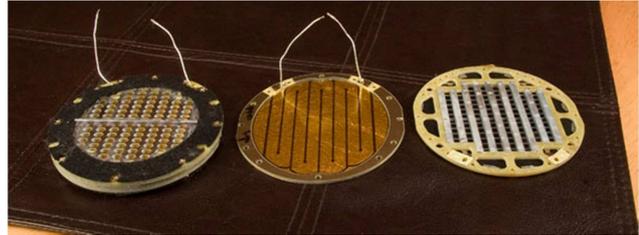
Read the text about types of speakers and match the type of the speaker with the picture:

Dynamic	The most common type of speaker, these devices are typically passive speakers. They generally have one or more woofer driver to produce low-frequency sound, which is also known as bass.
Subwoofer	Subwoofers are one-driver dynamic loudspeakers with a single woofer driver. The speaker's enclosure typically includes a bass port to increase low-frequency performance. These speakers are used to transmit bass or low-frequency sound.
Horn	Horn speakers are similar to dynamic speakers in that they use similar drivers arranged at the small end of a cone-type structure. The driver is attached to a wave-guide structure. This type of speaker offers a high degree of sensitivity and transmits sound efficiently in large areas.
Electrostatic	Electrostatic speakers are a type of flat-panel loudspeaker or diaphragm speaker. They feature one driver and a thin membrane over two conductive, stationary panels. Electrostatic speakers generally have an outside power source and are plugged into an electrical outlet. The membrane receives an alternating current from an amplifier, which produces sound since the thin membrane moves very little.
Planar-Magnetic	These speakers feature a tall, thin, and narrow metal ribbon instead of the wide diaphragms found on electrostatic speakers. This type of speaker does not need to be connected to an electrical system to operate.



a)

b)



c)



d)

e)



Exercise: (answer key)

Dynamic d)
Subwoofer c)
Horn a)
Electrostatic e)
Planar-Magnetic b)