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Subject: Re: Magnets

Posted by [Wayne Parham](#) on Wed, 20 Feb 2013 15:33:32 GMT

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Actually, a speaker transforms electrical energy to kinetic energy using the interaction of two magnets. One is a fixed magnet and the other is an electromagnet. Back several years ago, they used to make speakers with two electromagnets, one that was energized with a stable direct current, and the other fed the audio signal, which is an alternating current waveform. In either case - field or fixed magnet - the result is the same, which is that the audio signal causes movement of the cone because of the interaction of the fixed magnet with the one fed with the audio signal. Your "HowStuffWorks" link shows this pretty well.

What you described is the reverse, and that's pretty much how microphones work. The sound moves the diaphragm, and that in turn moves the coil. The magnet flux cuts across the moving coil and this creates a current, which is the audio signal.