

Sage Model Notes

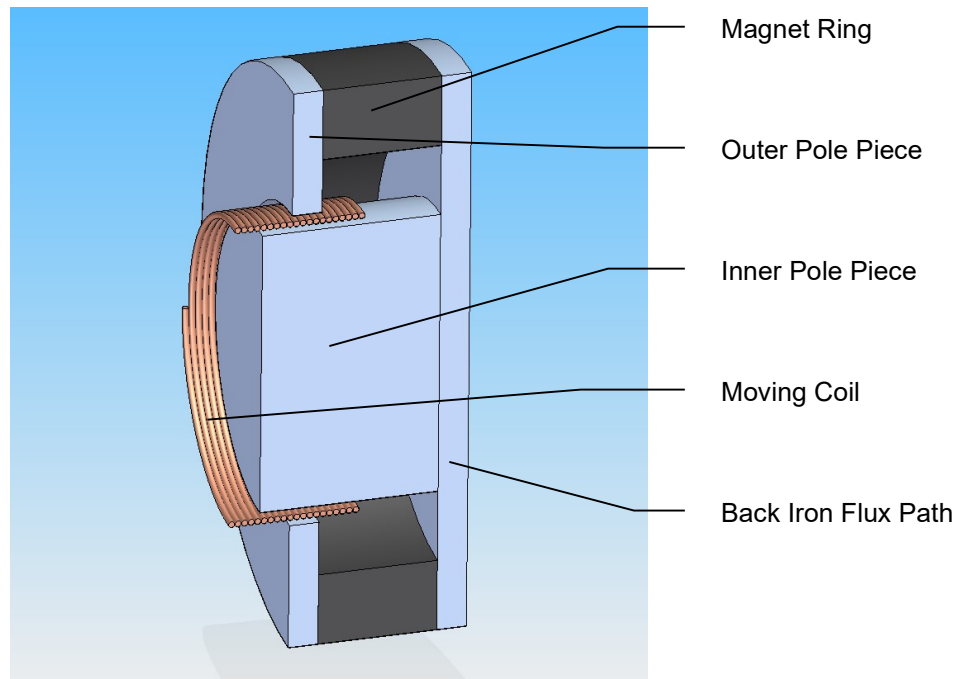
LoudspeakerVoicecoilAlt.scfn

D. Gedeon

17 July 2012 (revised 1 November 2024)

An alternative version of the model LoudspeakerVoiceCoil.scfn employing a *right-turned magnetic gap* instead of a *left-turned magnetic gap*.

The following rendering illustrates a right-turned magnetic gap:



Compared to the *left-turned magnetic gap* illustrated in the companion document *LoudspeakerVoicecoil.pdf* it is flipped horizontally so the back iron is on the right side instead of the left.

This model is provided mainly for cutting and pasting purposes for possible use in other models, either as a stand-alone right-turned voice-coil actuator or part of an opposed left-turned and right-turned pair.

The document *LoudspeakerVoicecoil.pdf* serves as the documentation for this model too since all the physical principles are the same. The only difference in model inputs compared to *LoudspeakerVoicecoil.stl* is the current phase angle set in the *current source* component. It is shifted by 180 degrees (-90 instead of +90). This is done so the voice coil produces an equal but opposite force acting on the speaker cone. Apart from occasional minus sign factors the solutions are identical.