LOUDSOFT

FINEMotor™
Magnet System & Voice Coil Design Program
"The Industry Standard"

Features:

- Designs Woofers, Midranges, Tweeters, Headphone drivers, Micro Speakers etc.
- Accurate prediction of SPL and TS parameters
- All VC solutions are calculated using all available wires and shown as curve
- Accurate prediction of VC winding width, DCR, N, VCOD, VC mass etc.
- Accurate prediction of BL(x) curves: +/- Xmax defined as 82% BLmax (Klippel)
- FINEMotor is instant with 36,000 stored Magnetic Finite Element calculations
- Wire stretch is calculated
- Round and Flat /Edge wound Voice Coils
- Copper, Aluminum and Copper Clad VC wires
- Standard Chinese Ferrite and Neodymium magnet grades available
- Magnet grades and -sizes can be can be user modified
- Wire diameters can be user modified for both round and flat wires
- Automatic compensation of magnetic air gap for multi-layer VC's
- Twin Voice Coils can be designed as 1 +1, 2 + 2, 4 + 4 layers etc.
- Qms is estimated by including Paper, Kapton, Nomex or Aluminum VC former
- Fs is calculated from Cone Fo and Spider deflection / resonance / flexibility
- Magnetic saturation is calculated in Pole, top plate and back plate
- Magnetic loss from steel frame is included
- Voice Coil can be offset up / down by dragging with the left mouse button
- Motor can be optimized with pole extension, undercut and extension undercut
- Outside Ferrite and inside Neodymium motors with top and rear magnets
- Voice Coil calculated as 1-layer, 2-layer etc up to 10-layers
- Motor design including Ferrofluid, for damping and cooling
- Attach flux profiles from other FEA software
- Input data and parameters with extra precision for Micro Speakers
- Rectangular Micro Speakers with both rectangular VC and magnet system

www.loudsoft.com