Experiment #3 Comments

• Focus on clean wiring, emphasizing good layout techniques
  − Keep pulsating current loops small
  − No wire is an ideal short
• Drill vector board holes first
• Avoid transients
  − Start switching, then slowly bring up input voltage
• Always have representative waveforms on oscilloscope
  − Switched node voltage, inductor current
Inductor Air Gap

\[ L \approx L_{ideal} \left(1 + \frac{l_g}{\sqrt{A_c}} \ln \left(\frac{2W}{l_g}\right)\right) \]

\[ \text{Fringe Factor} \]

https://e-magnetica.pl/flux_fringing
Power Stage
Some Test Circuits