

## MAE/ECE 535: DESIGN OF ELECTROMECHANICAL SYSTEMS

Spring 2020

### Design Project Grading Rubric

Dr. G.D. Buckner

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Student(s)        Grant, Gray, Griffith, Thomas    

**Technical Methodology** (overall quality of modeling and design methodologies, suitability/scope of analytical and computational tools used, effectiveness of exploring and interpreting the design space, accuracy of parameters, etc.):

**40/40** Very impressive use of analytical (MCA, Biot-Savart, etc.) and computational methods (FEMM, Maxwell, etc.). Parametric sweep/sensitivity analyses (Figs. 7-8) are excellent, as are the thermal and cost analyses. Overall, very thorough and correct technical aspects. I'll be surprised to see a more comprehensive project than this... excellent!

**Design Feasibility** (design adequately satisfies all specifications, enough information is provided to expect that a device built from design would meet all requirements, etc.):

**29/30** Identified a design that satisfies most/all design specs. Would have liked to see a fully dimensioned drawing of optimized design, however.

**Design Originality** (innovation of approach and resulting design, exploring and comparing multiple design concepts, etc.):

**20/20** The aforementioned technical methods (especially extensive use of MCA and parametric sweeps) were novel, impressive.

**Report Quality** (clarity, quality of technical writing, figures and tables, formatting, grammar, spelling, etc.):

**10/10** Very nice!

**Total:    99/100**