ECE2260
Lab 1 – Report Point Breakdown

Communication 30 Points Total
Organization (ease of locating figures/code/etc) 5
Clarity of style (ease of reading, and etc.) 5
English (grammar, punctuation, and etc.) 5
Introduction 3
Figure titles and numbers 3
Equations explained (at least one sentence between equations) 4
Matlab listings and comments 5

System Components 10 Points Total
Table of Components (Measured Values) 5
Measured Components used in Matlab 5

Analysis of Launcher Circuit 20 Points Total
Overdamped:
Circuit Schematic 2
Derivation of I(t) 2
Matlab Plot of I(t) Expression 2
State Equations Derivations 2
Matlab Comparison of I(t) for 2 Methods 2
Underdamped:
Circuit Schematic 2
Derivation of I(t) 2
Matlab Plot of I(t) Expression 2
State Equations Derivations 2
Matlab Comparison of I(t) for 2 Methods 2

Construction and Testing of Launcher 10 Points Total
Measured R and L of Coil 5
Table of Launch Measurements 5

Third-Order System 25 Points Total
Circuit Schematic 2
State Equations Derivations 6
Matlab Code for ODE45 Solver 3
Matlab Plot of ODE45 Solution 2
Measured V2 Plot 4
Matlab Code for Comparison 3
Matlab Comparison Plot 2
Comments on Measured vs. Calculated Comparison 3

Conclusion 5 Points Total