

ECE2270**Lab1 – 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