AAE 364L – Experiment #1 Grading Sheet **Name_____**
One Dimensional Cart on a Track

	Possible	Points
Cover Page - 1		
Title, Name, Course, Date, TA etc.	1	
Subtotal	**1**	
Introduction - 4		
Objectives/Goals/Purposes	2	
Intended Methods	2	
Subtotal	**4**	
Procedure - 10		
Definition of Variables	2	
Schematic and Description of Apparatus	3	
Procedure of Experiments	5	
Subtotal	**10**	
Results - 15		
Part (i) m, γ, B_{emf}, B_{eq}, and c	2	
Part (ii) New estimate of B_{eq}	1	
Part (iii) f_c, upper bound of $\|e(\infty)\|$, $e(\infty)$ from both simulation and experiment	3	
Part (iv) Largest value of k_i such that the system is stable	1	
Part (v) Initial k_p, k_i, k_d designed using Simulink and the corresponding rise time, percent overshoot, settling time, and steady state error.	4	
Part (v) Final k_p, k_i, k_d chosen, after running the experiment and the actual rise time, percent overshoot, settling time, and steady state error.	4	
Subtotal	**15**	
Analysis and Discussion – 35		
Part (i)	5	
Part (ii)	5	
Part (iii)	5	
Part (iv)	5	
Part (v)	5	
Discussion of the effects of kp, ki, kd on the closed loop response	5	
ALL Simulink models in the Appendix. Make blocks large enough to show what are in them	5	
Subtotal	**35**	
Conclusion and Recommendation – 10		
Main Points	5	
Theoretical/Experimental Limitations	3	
Personal Lessons Learned and Suggestions for Improvement	2	
Subtotal	**10**	
Style, Participation, and Prelab – 25		
Organization	4	
Grammar	3	
Neatness	3	
Participation	5	
Prelab	10	
Subtotal	**25**	
Total	**100**	