EENG498BC: Motor Control Rubric

Student 1: _____ Student 2: _____
Student 3: _____ Student 4: _____

	Excellent (100%)	Competent (60%)	Developing (30%)	Grades
Documentation 10 pts each element	• Short document completed outlining control design and design method, with simulated and actual motor response graphs, correctly and clearly labled. • Well documented simulink, arduino and Matlab code is available that can perform a simulated and actual step response experiment and compare the results.	• Document is missing some details or simulated and actual motor response graphs have some errors or are not clear • Code is not well documented or has errors	• Document is missing most details or simulated and actual motor response graphs have many errors • Not all code is available.	___/20 ___/20 ___/20 ___/20
Demonstration 5 pts each element	• Students are fully competent to perform both an open loop and closed loop step response experiment in both simulation and hardware. • Students can identify the purpose of each part of their simulink block diagram and/or arduino code as appropriate • Students are fully competent to save and plot simulated and actual results, which includes motor speed and applied pwm signal. • Students are fully competent to change the characteristics of their step response experiments (step magnitude, sampling time, etc.)	• Students are competent to perform a simulation of the motor/wheel system and a step response experiment of the actual motor/wheel system • Students can identify the purpose of most parts of their simulink block diagram and/or arduino code as appropriate • Students are competent to save and plot simulated and actual results • Students are competent to change the characteristics of their step response experiments (step magnitude, sampling time, etc.)	• Students have difficulty to perform a simulation of the motor/wheel system and a step response experiment of the actual motor/wheel system • Students have difficulty to identify the purpose of the parts of their simulink block diagram and/or arduino code as appropriate • Students have difficulty to save and plot simulated and actual results • Students have difficulty change the characteristics of their step response experiments (step magnitude, sampling time, etc.)	___/20 ___/20 ___/20 ___/20
Reflection Logs 10 pts	• Reflection log is completed	• Reflection log partially completed	• Reflection log mostly incomplete	___/10 ___/10 ___/10 ___/10
			Total score:	___/50 ___/50 ___/50 ___/50