Project 1 - "Robot Motion"

Project 1 Grading

Name: _____

Item	Grade	Points	Out of	Initials /Date	Due
Bitbucket Repo	**On-Time:** ---- **Late:** 1Day ---- 2Days ---- 3Days ---- 4+Days --- Zero --- Check Minus --- Check --- Check Plus ---		5		EOC 7 Mar
	- Go to www.Bitbucket.org and create a code repository named "YourLastName_CSCE_236". Make sure you make it private and share with "jfalkinburg".				
Checkpoint 1	**On-Time:** ---- **Late:** 1Day ---- 2Days ---- 3Days ---- 4+Days --- Zero --- Check Minus --- Check --- Check Plus ---		5		EOC 7 Mar
Robot Assembly	- All robot parts are assembled and connected. Especially the motors, L298N, Arduino, and Power. Create a schematic of your robot parts and how you will be interfacing with you motors.				
Required Functionality	**On-Time:** ---- **Late:** 1Day ---- 2Days ---- 3Days ---- 4+Days --- Zero --- Check Minus --- Check --- Check Plus ---		30		EOC 12 Mar
Robot Motion	- Demonstrate movement forward, backward, a small (< 45 degree) turn left and right, and a large (> 45 degree) turn left and right. The robot should perform these movements sequentially, completely disconnected from a computer (i.e. no USB cord)?				
B Functionality	**On-Time:** ---- **Late:** 1Day ---- 2Days ---- 3Days ---- 4+Days --- Zero --- Check Minus --- Check --- Check Plus ---		10		EOC 14 Mar
Wall Following	- Demonstrate that your robot can follow a wall for 20 feet (i.e. staying within a foot of the wall without touching it) using your ultrasonic sensor.				
A Functionality	**On-Time:** ---- **Late:** 1Day ---- 2Days ---- 3Days ---- 4+Days --- Zero --- Check Minus --- Check --- Check Plus ---		10		EOC 26 Mar
Library Files	- Create standalone library files that includes a header and implementation file and upload them to Bitbucket. You can call them motors.h (header) and motors.c/motors.cpp (implementation). - Create a README.md or help file to show how to use library.				
Code Style and Git Use	**On-Time:** ---- **Late:** 1Day ---- 2Days ---- 3Days ---- 4+Days --- Zero --- Check Minus --- Check --- Check Plus ---		10		EOC 26 Mar
	- Effectively commits code often and with effective commit messages - Code contains headers, good comments, and good coding practices				
Lab Report	**On-Time:** ---- **Late:** 1Day ---- 2Days ---- 3Days ---- 4+Days --- Zero --- Check Minus --- Check --- Check Plus ---		25		BOC 26 Mar
	- See project report template				
Competition Bonus	- Demonstrate that your robot can follow a wall for 20 feet with an obstacle (i.e. staying within a foot of the wall without touching it). Using your ultrasonic sensor and servo to avoid an obstacle against the wall.				
Total			**100**		