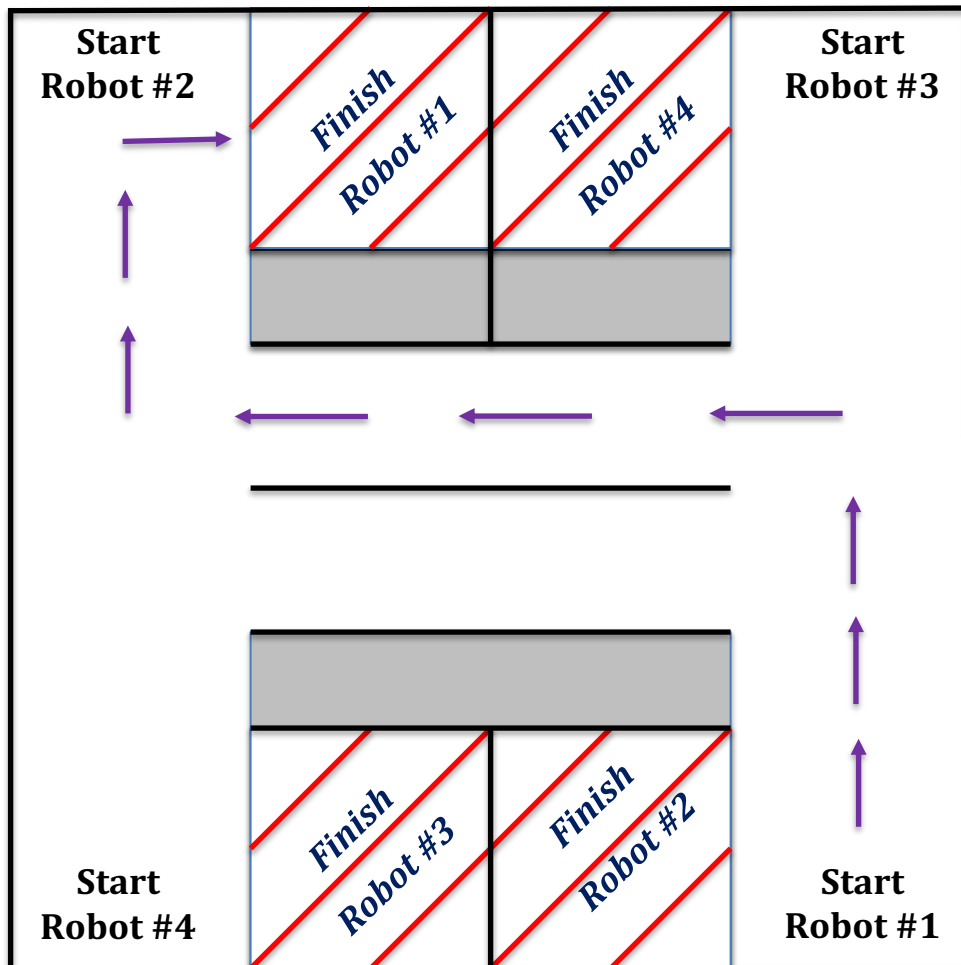# Vex Motion - "The Labyrinth Challenge"
Gradesheet – *(65 pts.)*
Purpose: *Students will program their robot to complete the maze by using all the commands shown below.*

Motion		
Spin	Have both wheels spin (same code), but wheels move in opposite directions!	5pts
Reverse Polarity	Change the direction the motors spin so that it now goes straight.	5pts
Rename Motor	Change name of the motors.	5pts
Timing	Adjust the timing so that the robot stops at the "Left Turn Point."	5pts
Speed	Adjust the Speed (lower) and Timing (longer) of the robot so that it continues to stop at the "Left Turn Point."	5pts
Turn & Reverse	Adjust the motors so that the robot has a "Point Turn" at the "Left Turn Point."	5pts
Manual Straightening	Adjust the code so that the robot travels straight and doesn't veer slightly right or left.	5pts
Shaft Encoders		
Shaft Encoder	Edit the code so that you rely on the Shaft Encoder to have the robot travel and turn to the "Left Turn Point."	5pts
Configure Encoders & While Loop	Configure encoders using the Setup Window. Clear the Encoders. Add a While Loop so that the robot stops at the "Left Turn Point."	5pts
Finish Code!	Write a code using Encoder Counts so that your robot begins at the "Start Point" and ends on the "Finish Point".	10pts
Automatic Straightening with Encoder		
Encoder Straightening	All Forward Motion will rely on Auto Straightening by the Encoder.	5pts
Values and Variables		
Variables	Edit the code so that Variables are used throughout the program.	5pts