ECGR4161/5196, MEGR4127 – Introduction to Robotics
Lab Assignment #5– Version 1.0

See Canvas for the due date/time

In this lab assignment will be done in pairs or individually. The main objective is to program your TI RSLK Robot to drive the radius of a circle, then drive the complete 360-degree circumference of the circle, then return to the center of the circle.

Submission type: Live demonstration and lab report (Must include your name and all requirements mentioned below)

Lab specifics

The following guidelines must be followed for the live demonstration to a TA:

1. Demonstrate the downloading of code to your robot
2. Set the robot down over a tape-mark the TA identified in EPIC 2130 (we may also use the hallway outside the lab for testing).
3. The robot should drive 0.75 meters straight and stop.
4. The robot should turn 90 degrees counterclockwise
5. The robot should then drive the circumference of a complete circle with a radius of 0.75 meters and stop.
6. The robot should turn 90 degrees counterclockwise
7. The robot should drive 0.75 meters straight and stop.
8. The TA will record how close you end up to the original starting point, as well as how strait the radius was driven and how round the circle was driven.

Lab Report - Submission Instructions:

1. Prepare a file, output to PDF that includes:
    a. Your name and your "partner's" name (if applicable)
    b. What the general objective the robot / apparatus is expected to perform, and
    c. Commentary on the lab (lessons learned, problems encountered).
    d. Attach your code to the end of the report, as detailed by TA Joey Phillips (video, document guidelines posted on the discussion area of Canvas). We want to see structure, indentation, and comments. Lots of comments.
2. Upload the PDF to Canvas, Lab 5 submission, one per lab group