## Assignment 01 - Turtlesim Simulation

## **Objective:**

- Enhance your understanding how information is exchanged between different components in a mobile robot
- Improve programming ability for controlling a mobile robot

## Tasks:

Based on the previous turtlesim lab works, you need to complete the following two tasks by modifying the python code to satisfy the new requirements.

- 1) Re-program the turtle to drive in a square
- 2) Re-program the turtle to drive in a figure of 8

Hint: There are multiple ways of achieving these tasks.

A simple solution is to publish a direction for a duration of time. e.g., publish going forward for 1s, then turning for 1s etc....

A more complex solution is to set goals, and to compare the current pose position with the desired pose position.

**Note:** This is a formative assessment. Feedback may be provided if necessary. The outcome of this assessment has no contribution to your final grade.

## Reference:

http://wiki.ros.org/turtlesim/Tutorials/Moving%20in%20a%20Straight%20Line http://wiki.ros.org/turtlesim/Tutorials/Rotating%20Left%20and%20Right http://wiki.ros.org/turtlesim/Tutorials/Go%20to%20Goal