Research: Work Due 2/21

**General Questions/Comments-**

As of right now I am planning on listening to you lecture on graph grammars, otherwise we can talk about some software/ROS/graph algorithms that will be implemented.

I did manage to follow enough tutorials to be able to implement the homework. In fact, one of the tutorials gave me the code to be able to implement the homework. Essentially all we would be doing is creating a publisher node that imports "Twist" (A kinematics msg library from geometry\_msg) and sets the velocity appropiately based on the input of the user. <http://wiki.ros.org/turtlesim/Tutorials/Moving%20in%20a%20Straight%20Line>

For this week I have started using ROS, I have started looking at the websites you have recomended.

<http://www-cvr.ai.uiuc.edu/~seth/Teaching/ece550/sp16/docs/p-hwk1>

<https://sites.google.com/site/ashortrostutorial/>

<https://github.com/acowley/roshask/wiki/True-Modularity>

<https://github.com/acowley/roshask/wiki/Tutorial:-Publisher-Subscriber>

ROS

**General Idea:**

ROS (Robot Operating Systems) is a collection of software libraries for the sole purpose of forcing the user to open up many windows. It also has robot applications.



It seems like ROSHASK has the advantage of being able to assign/pass types. The second tutorial was an introduction to being able to create subscriber/publisher nodes in HASKELL.

While installing ROS 2, I managed to read some topics on the advantage of ROS 2 over ROS 1 and the advantages that I remember is the new DDS system that requires there to only be a publisher and subscriber node. Another advantage was how the programmer can choose how data is sent (or rather why they tend to prefer having some what incorrect data arrive immediately over more correct data coming in later). ROS 2 has some packages that can be installed alongside ROS1 (using a bridge). So it may be possible that it is not necccessary to upgrade to ROS2 unless we can find a reason (given that the bridge exists).

**Questions:**

**Ideas:**

I didn't have much luck downloading ROS 2.0 onto my machine, so I am starting to practice and learn using ROS indigo. When I have a better understanding of the files/making programs in ROS I will upgrade to 2.0 (or if it becomes neccessary...).