Module 3 - Python3 for Robotics

Lesson Objectives:

1. Learn fundamental concepts of Python
2. Learn basic syntax of Python
3. Understand Object Oriented Programming
4. Develop basic operational understanding of Python through application

Agenda:

1. Python3 Jupyter Notebook.
2. ICE3 Jupyter Notebook.

1 Python3 Jupyter Notebook.

We will use a Jupyter Notebook to practice and provide a Python3 refresher.

1. On the master, open the Jupyter Notebook server:

```
dfec@master:~$ roscd usafabot_curriculum/Module3_Python3
dfec@master:~$ jupyter-notebook
```

2. Open the Python3 Jupyter Notebook, "Module3_Python3.ipynb", and follow the instructions within the notebook.

2 ICE3 Jupyter Notebook.

The ICE3 Jupyter Notebook will guide you through implementation of a chat client/server using ROS and Python3.

1. On the master, open the Jupyter Notebook server (if it is not already open):

```
dfec@master:~$ roscd usafabot_curriculum/Module3_Python3
dfec@master:~$ jupyter-notebook
```

2. Open the ICE3 Jupyter Notebook, "ICE3_Client.ipynb" and follow the instructions within the notebook.

Checkpoint. Take a screenshot or show the instructor the following:

1. The output of each of the code blocks within the "ICE3_ROS.ipynb" notebook.

3 Assignments.

☐ Complete Jupyter Notebooks if not accomplished during class.

4 Next time.

- **Lesson 8** - Quiz and ICE 3
- **Lesson 9** - Quiz and Module 4 - Driving the Robot