Helpful Links

The following are a list of helpful links you will need when learning to program Baxter:

General ROS (Robot Operating System) and Baxter Help

- http://wiki.ros.org/ROS/Tutorials – Tutorials on the basic functions and ideas behind ROS.
- https://groups.google.com/a/rethinkrobotics.com/forum/#!forum/brr-users – The Baxter Research Robot community on google groups where questions are asked and answered about issues people are having with Baxter, if your encountering a problem or don't know how to do something look here first because the it is likely someone has encountered the same problem before.
- http://sdk.rethinkrobotics.com/wiki/API_Reference – Information on all Baxter's inputs and Outputs such as sensors, joints, grippers, etc.
- https://github.com/RethinkRobotics/sdk-docs/wiki/Calibration – How to guide on calibrating Baxter.
- https://docs.python.org/2/library/ - A list of all Python libraries with links.
- http://www.tutorialspoint.com/python/python_functions.htm – A guide to writing Python functions.
- http://answers.ros.org/questions/ - ROS question and answer forum, here you will find common problems people have had with ROS and the fixes for those issues. Please note however this is for ROS in general and not just the Baxter robot.

Baxter ROS Software

- http://sdk.rethinkrobotics.com/wiki/MoveIt_Tutorial – Information on move it, a program which allows you to move Baxter's arms to a new position on the screen and then get the program to calculate and execute the necessary movement.
- http://sdk.rethinkrobotics.com/wiki/Rviz – Information on Rviz, a 3D visualiser for displaying sensor data and sate information.

Writing ROS Python scripts

- https://docs.python.org/2/tutorial/stdlib.html – This page contains information about libraries within Python which you can import into your script and use the functions contained within them.
- https://docs.python.org/2/library/math.html – Specific information about the functions in the Math library which you will probably need a lot with Baxter.
- http://en.wikibooks.org/wiki/Python_Programming/Basic_Math – Basic maths programming in python.
- http://docs.opencv.org/ - Information on a Python library called opencv which contains a lot of code for image processing.
- http://anh.cs.luc.edu/python/hands-on/3.1/handsonHtml/ifstatements.html – A guide to writing if statements in python.

ROS Terminal Commands

- http://answers.ros.org/question/11330/how-can-i-use-bag-file-data-in-matlab/#3799 – How to record data published by Baxter to a text file.

Examples of Packages or Programs Already Created By People:

- https://github.com/nildo/organizer-baxter – Baxter object recognition and movement.
- https://github.com/thomasweng15/cs473-baxter-project – A project combining vision and actuation to determine compressibility of an object.

- https://github.com/bipul21/Colored-Ball-Tracking/blob/master/tracking.py – A program tracking two coloured balls within a camera feed.
- http://www.blogdugas.net/?p=120 – Coding to detect an object of a certain colour in a camera feed.