Guide Contents

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1. Basic Operation:

- <u>Baxter Robot Startup Procedure</u> Instructions to correctly start up the Baxter robot.
- <u>Baxter Robot Shutdown Procedure</u> Instructions to correctly shut down the Baxter robot.

2. Baxter General Information:

 <u>Baxter gripper movement and orientation coordinate system.</u> – A brief description of how Baxter's coordinate system works relative to Baxter.

3. Running Demonstration Programs:

- **Baxter codes** A guide on how to run the connect four demonstration and how to calibrate Baxter.
- <u>Baxter Example Programs</u> The web page containing the full list of Baxter's example programs and how to run them.

4. Nodes:

- <u>READ ME Nodes</u> A brief introduction to the basics of writing nodes and Information on the different types of nodes.
- Movement:
 - <u>euler to quaternion conversion</u> The function required to convert between the Euler coordinate system and the quaternion coordinate system for the gripper orientation.
 - <u>ik_solver</u> The inverse kinematics solver required for movement nodes.
 - movement commands left3 An example movement node for Baxter's left arm.
 - movement commands right3 An example movement node for Baxter's right arm.
- Vision:
 - nottingham An example node for subscribing to one of Baxter's cameras and processing the image. Note: This script is Copyright 2014 Active Robots Ltd and for Educational Use Only.

5. Helpful Links:

 <u>Baxter Helpful Links</u> – A document containing links to websites that are helpful for Baxter and programming in ROS and Python.

6. Writing Python Scripts Basics:

- Writing Python Scripts Useful Commands A document containing commands that will be frequently used when writing Python scripts for Baxter.
- Writing Python Scripts Functions A document containing a step by step guide on writing basic functions in Python, including the correct formatting.
- Writing Python Scripts if Functions A document containing information on writing a basic and a more complicated if statement, including the correct formatting.
- **Common Fixes for Failing Python Scripts** A few brief troubleshooting solutions for when errors occur running nodes.