3. Creating a catkin Package

This tutorial will demonstrate how to use the catkin_create_pkg script to create a new catkin package, and what you can do with it after it has been created.

First change to the source space directory of the catkin workspace you created in the Creating a Workspace for catkin tutorial:

```
# You should have created this in the Creating a Workspace Tutorial
$ cd ~/catkin_ws/src
```

Now use the `catkin_create_pkg` script to create a new package called 'beginner_tutorials' which depends on std_msgs, roscpp, and rospy:

```
$ catkin_create_pkg beginner_tutorials std_msgs rospy roscpp
```

This will create a `beginner_tutorials` folder which contains a package.xml and a CMakeLists.txt, which have been partially filled out with the information you gave `catkin_create_pkg`.

`catkin_create_pkg` requires that you give it a `package_name` and optionally a list of dependencies on which that package depends:

```
# This is an example, do not try to run this
# catkin_create_pkg <package_name> [depend1] [depend2] [depend3]
```

`catkin_create_pkg` also has more advanced functionalities which are described in catkin/commands/catkin_create_pkg.

Link to create arm package:

http://wiki.ros.org/ROS/Tutorials/CreatingPackage
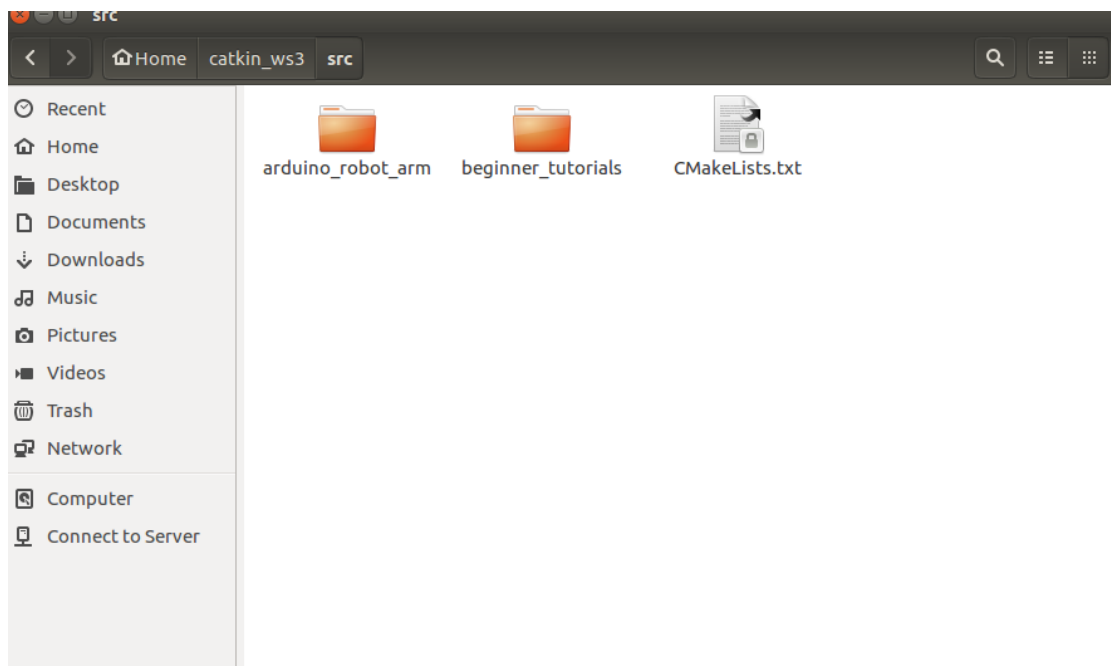
https://github.com/smart-methods/arduino_robot_arm

Movit

http://docs.ros.org/en/kinetic/api/moveit_tutorials/html/doc/setup_assistant/setup_assistant_tutorial.html