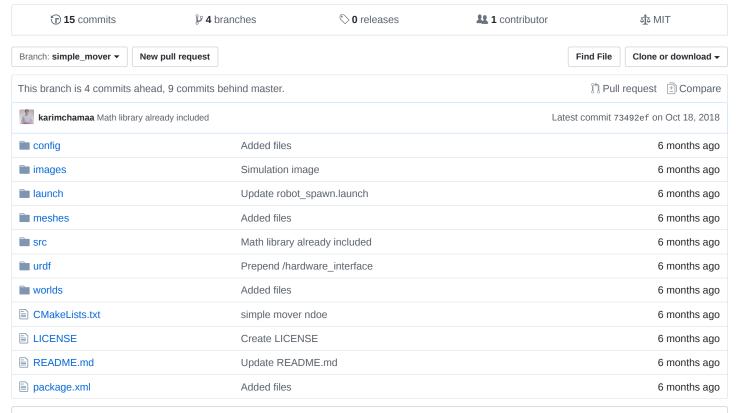📖 udacity / **RoboND-simple_arm**

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RoboND Refresh mini-project to explain pub-sub architecture in ROS

⊙ **15** commits	⑁ **4** branches	⬙ **0** releases	👥 **1** contributor	⚖ MIT

Branch: **simple_mover** ▾   **New pull request**   **Find File**   **Clone or download** ▾

This branch is 4 commits ahead, 9 commits behind master.   ⑁ Pull request   ⊡ Compare

👤 **karimchamaa** Math library already included   Latest commit 73492ef on Oct 18, 2018

📁 config	Added files	6 months ago
📁 images	Simulation image	6 months ago
📁 launch	Update robot_spawn.launch	6 months ago
📁 meshes	Added files	6 months ago
📁 src	Math library already included	6 months ago
📁 urdf	Prepend /hardware_interface	6 months ago
📁 worlds	Added files	6 months ago
📄 CMakeLists.txt	simple mover ndoe	6 months ago
📄 LICENSE	Create LICENSE	6 months ago
📄 README.md	Update README.md	6 months ago
📄 package.xml	Added files	6 months ago

📖 **README.md**

UDACITY RoboND

RoboND-simple_arm

A mini-project to better explain pub-sub architecture in ROS

How to Launch the simulation?

Create a catkin_ws, feel free to skip if you already have one!

```
$ cd /home/workspace/
$ mkdir -p /home/workspace/catkin_ws/src/
$ cd catkin_ws/src/
```

```
$ catkin_init_workspace
$ cd ..
```

Clone the package in catkin_ws/src/

```
$ cd /home/workspace/catkin_ws/src/
$ git clone https://github.com/udacity/RoboND-simple_arm.git simple_arm
```

Build the `simple_arm` package

```
$ cd /home/workspace/catkin_ws/
$ catkin_make
```

After building the package, source your environment

```
$ cd /home/workspace/catkin_ws/
$ source devel/setup.bash
```

Make sure to check and install any missing dependencies

```
$ rosdep install -i simple_arm
```

Once the `simple_arm` package has been built, you can launch the simulation environment using

```
$ roslaunch simple_arm robot_spawn.launch
```

Interact with the arm using the safe_move service

Open a new terminal and type the following:

```
$ cd /home/workspace/catkin_ws/
$ source devel/setup.bash
$ rosservice call /arm_mover/safe_move "joint_1: 0.0 joint_2: 0.0"
```

How to view image stream from the camera?

Camera image stream is published to the following topic:

```
/rgb_camera/image_raw
```

This stream can be viewed by following command in separate terminal:

```
$ rosrun image_view image_view image:=/rgb_camera/image_raw
```

Simulation Interface: