1 Installation

1. Install the joint state publisher:

```
$ sudo apt install
        ros-melodic-joint-state-publisher-gui
```

2. Next, git clone realsense package into your catkin folder and run catkinmake.

```
$ git clone
        https://github.com/pal-robotics/realsense_gazebo_plugin.git
```

2 Package Overview

2.1 urdf

The urdf folder is used to store (.urdf.xacro) and (.gazebo.xacro) files. (.urdf.xacro) files describe the transformations between the various links of the robot, along with other variables such as intertia.
(.gazebo.xacro) files would describe the kinematic properties of the robot such as velocity limits, coefficient of friction etc.

2.2 meshes

The meshes folder is used to store the various mesh files of the robot(.stl .dae). The mesh files are used to visualize various components of the robot(sensors, chassis) and to enable accurate collisions within gazebo.

2.3 rviz

The rviz folder is used to store the various rviz configs.

2.4 launch

- The launch folder is used to store roslaunch files. Launch files titled simulate_<robotname>.launch are used to launch the gazebo simulation environment and rviz.

- Launch files titled view_<robot>.launch are used to view the robots urdf model in rviz.