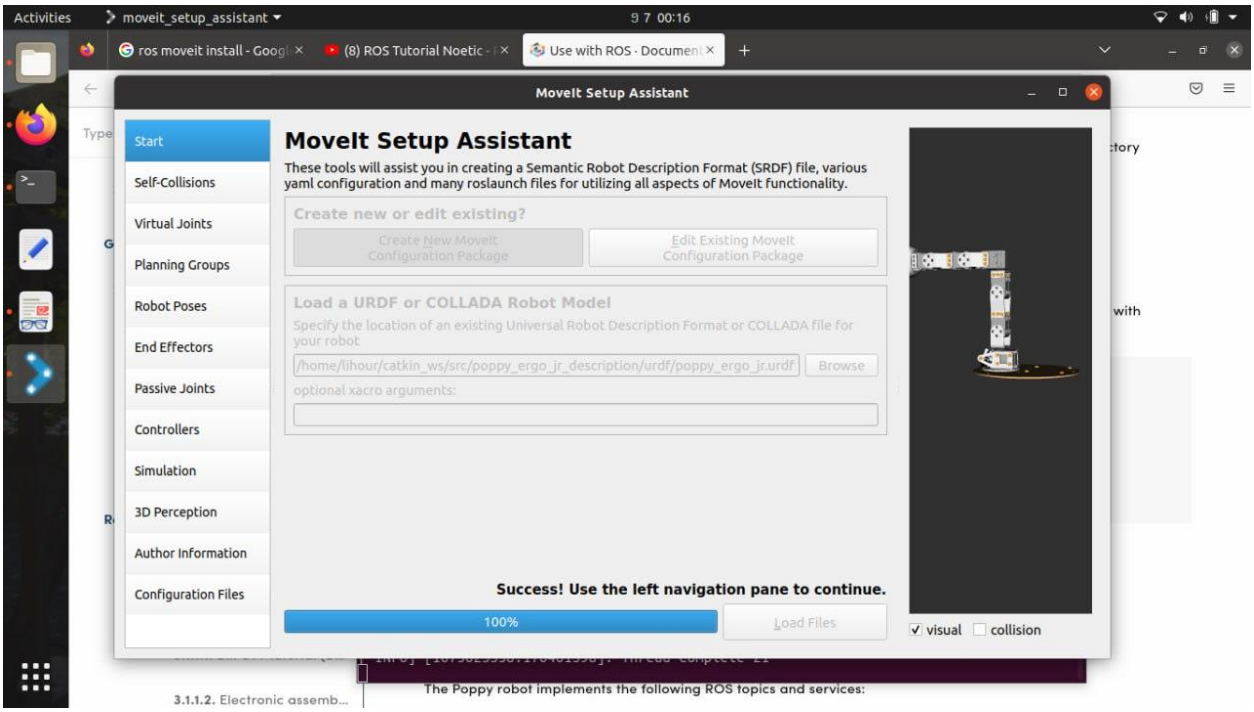
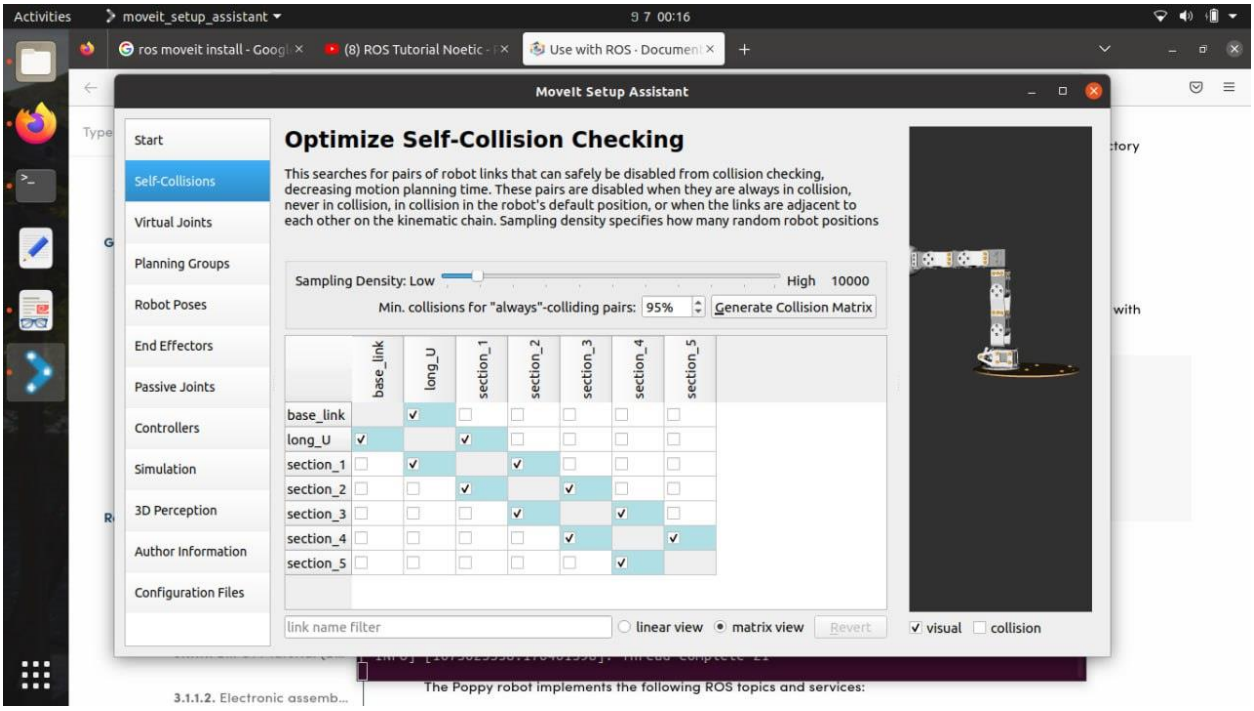
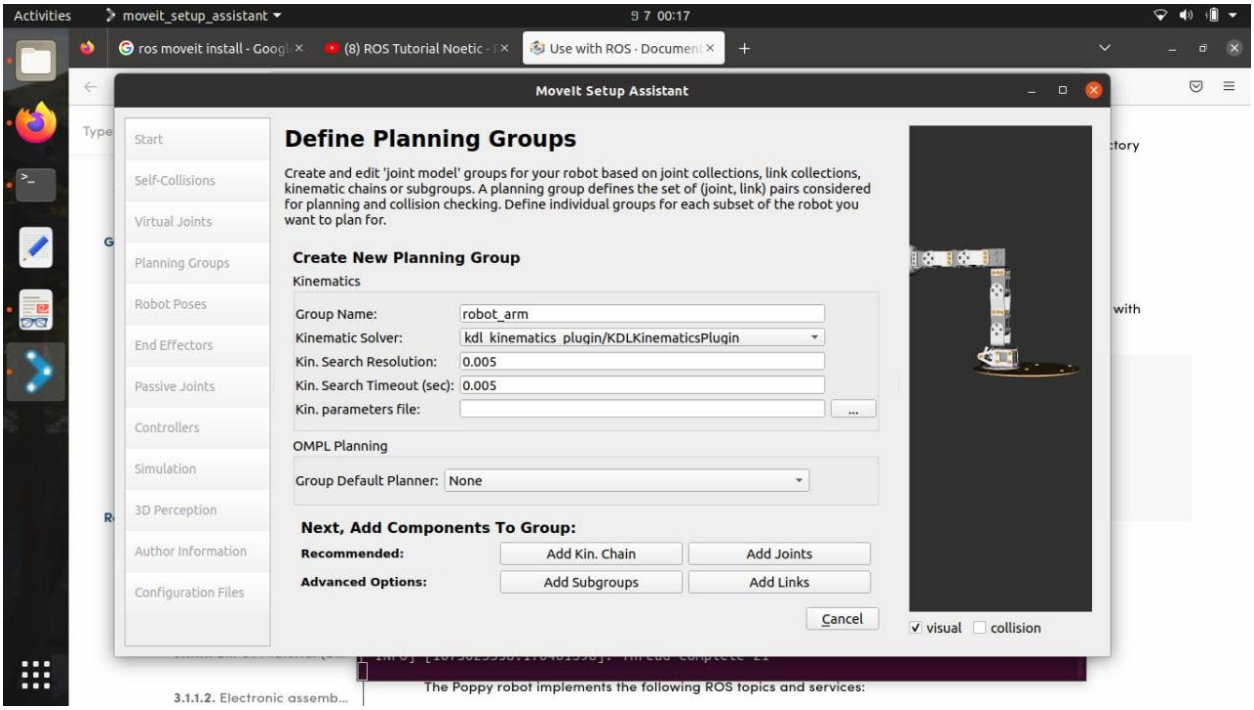
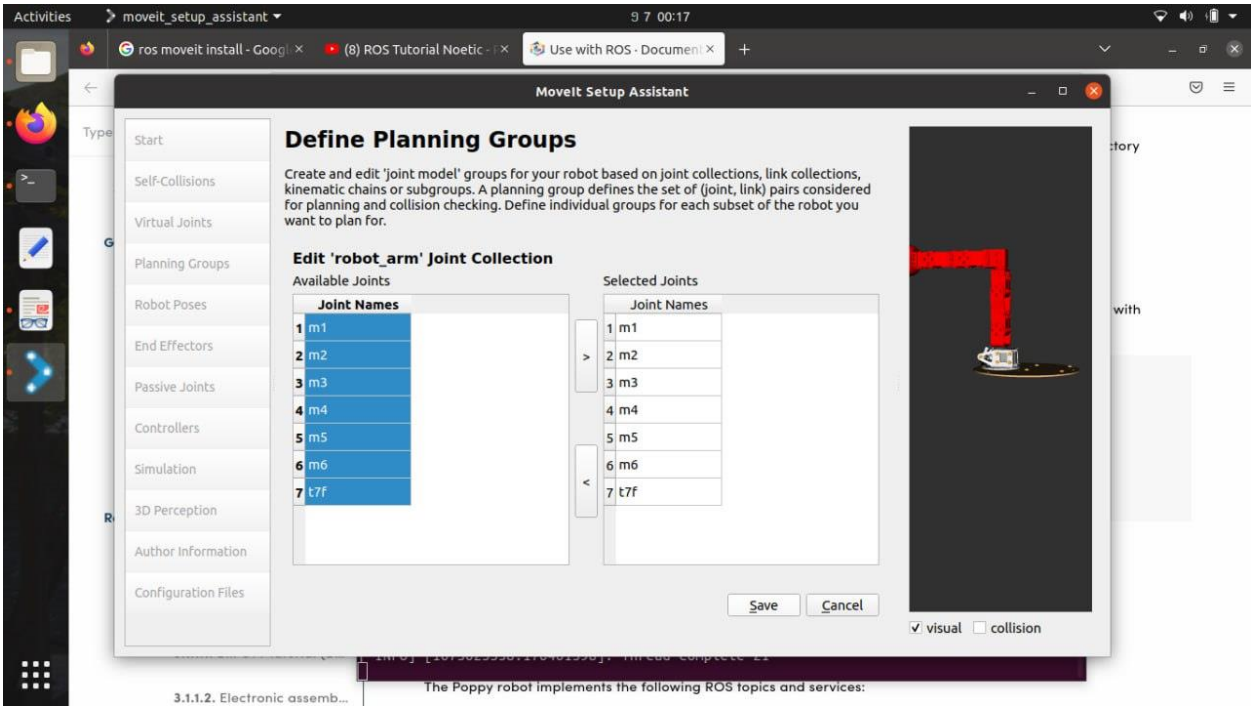
Report: Model robot with Moveit



Select file URDF & Follow step by step




Activities
moveit_setup_assistant
MoveIt Setup Assistant
Start
Self-Collisions
Virtual Joints
Planning Groups
Robot Poses
End Effectors
Passive Joints
Controllers
Simulation
3D Perception
Author Information
Configuration Files
Define Planning Groups
Create and edit 'joint model' groups for your robot based on joint collections, link collections, kinematic chains or subgroups. A planning group defines the set of (joint, link) pairs considered for planning and collision checking. Define individual groups for each subset of the robot you want to plan for.
Create New Planning Group
Kinematics
Group Name: robot_arm
Kinematic Solver: kdl_kinematics_plugin/KDLKinematicsPlugin
Kin. Search Resolution: 0.005
Kin. Search Timeout (sec): 0.005
Kin. parameters file:
OMPL Planning
Group Default Planner: None
Next, Add Components To Group:
Recommended: Add Kin. Chain Add Joints
Advanced Options: Add Subgroups Add Links
Cancel
visual collision
The Poppy robot implements the following ROS topics and services: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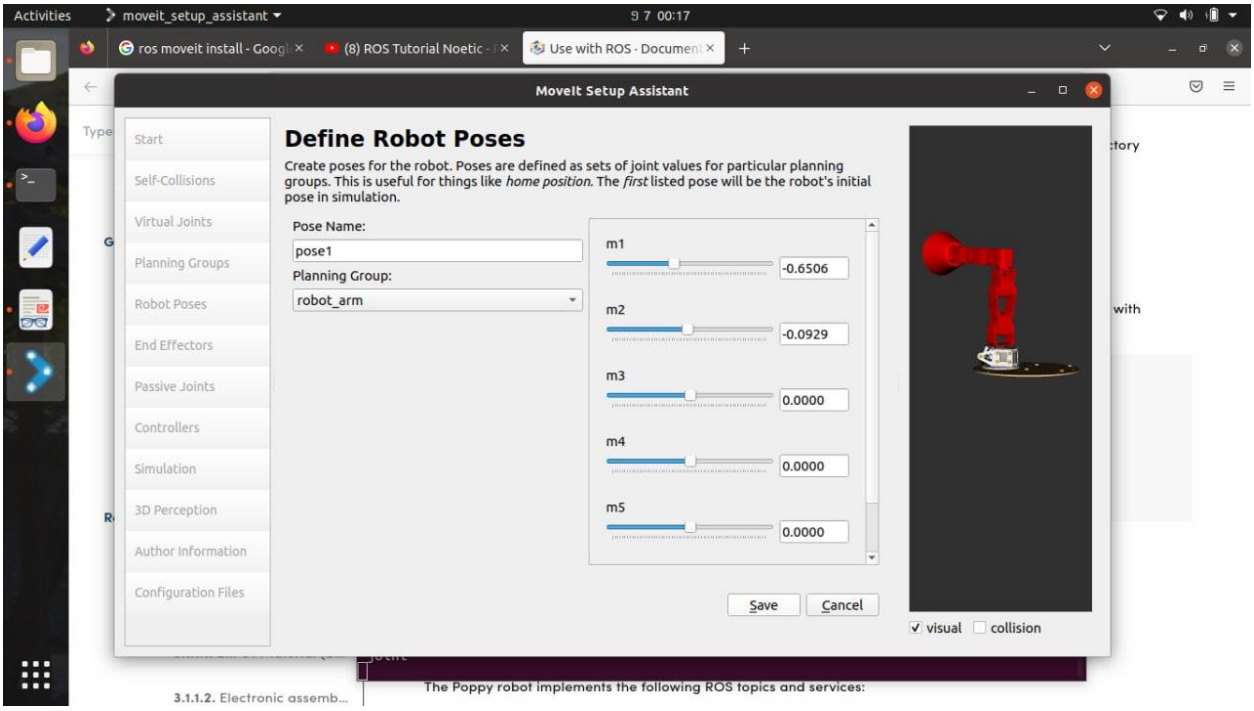
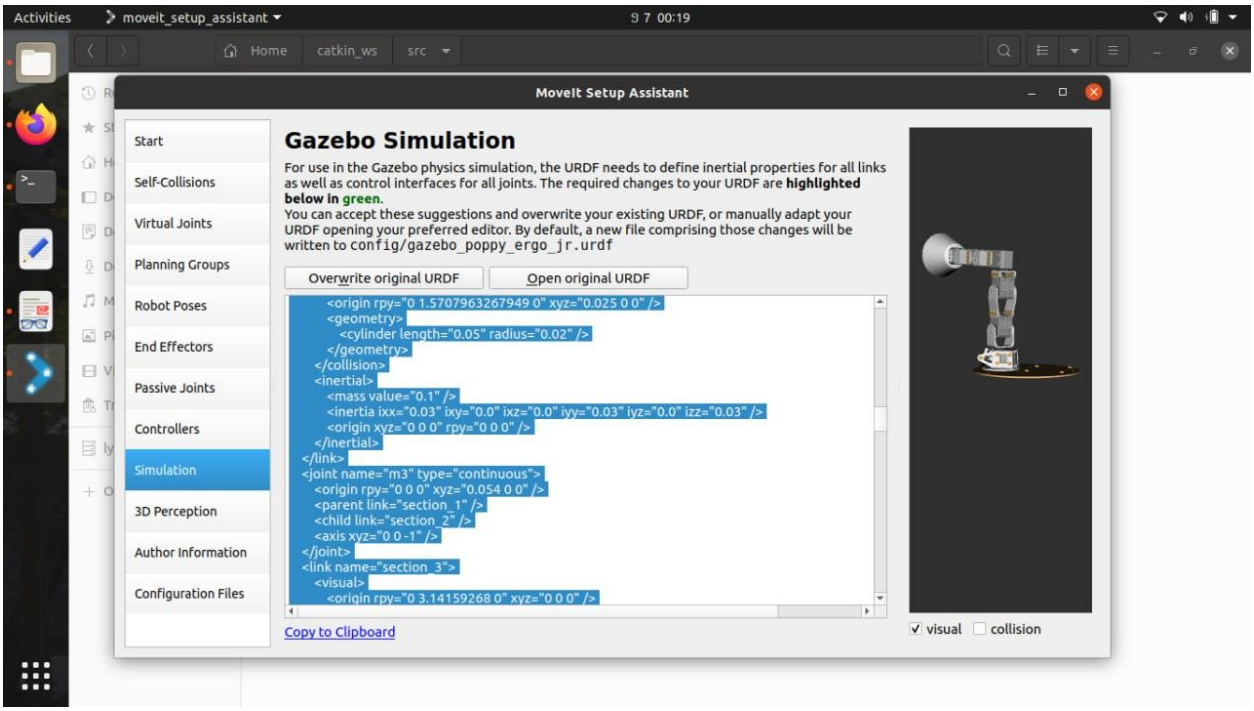
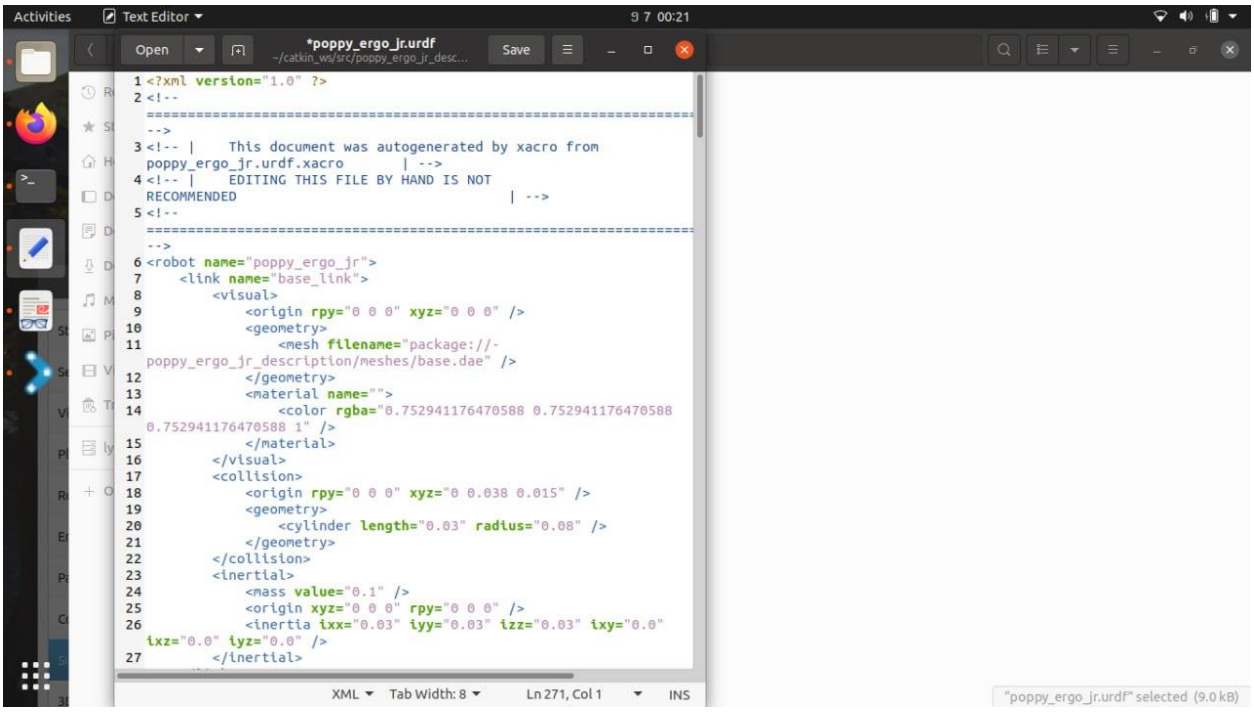
Edit 'robot_arm' Joint Collection
Available Joints
Joint Names
1 m1
2 m2
3 m3
4 m4
5 m5
6 m6
7 t7f
Selected Joints
Joint Names
1 m1
2 m2
3 m3
4 m4
5 m5
6 m6
7 t7f
Save
Cancel
visual collision
The Poppy robot implements the following ROS topics and services:

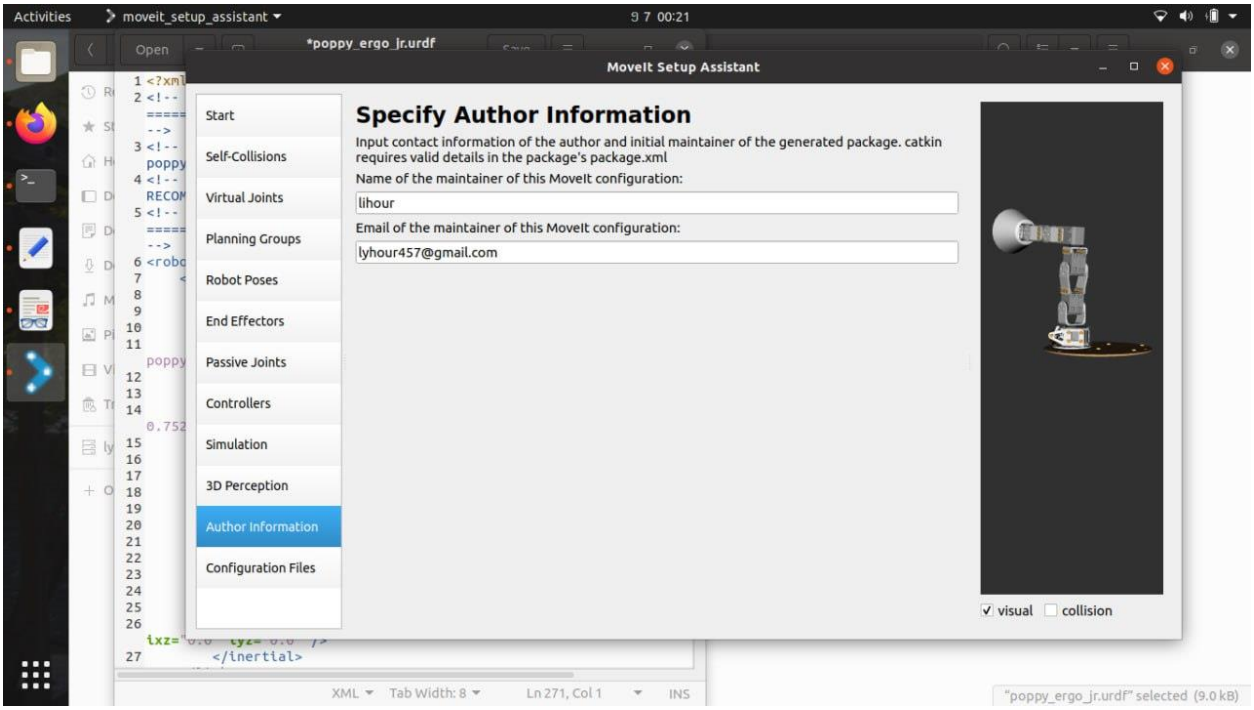




Copy this code to our URDF file


Activities
Text Editor
9 7 00:21
Open
*poppy_ergo_jr.urdf
~/catkin_ws/src/poppy_ergo_jr_desc...
Save
1 <?xml version="1.0" ?>
2 <!--
3 <!-- | This document was autogenerated by xacro from poppy_ergo_jr.urdf.xacro | -->
4 <!-- | EDITING THIS FILE BY HAND IS NOT RECOMMENDED | -->
5 <!--
6 <robot name="poppy_ergo_jr">
7 <link name="base_link">
8 <visual>
9 <origin rpy="0 0 0" xyz="0 0 0" />
10 <geometry>
11 <mesh filename="package://-poppy_ergo_jr_description/meshes/base.dae" />
12 </geometry>
13 <material name="">
14 <color rgba="0.752941176470588 0.752941176470588 0.752941176470588 1" />
15 </material>
16 </visual>
17 <collision>
18 <origin rpy="0 0 0" xyz="0 0.038 0.015" />
19 <geometry>
20 <cylinder length="0.03" radius="0.08" />
21 </geometry>
22 </collision>
23 <inertial>
24 <mass value="0.1" />
25 <origin xyz="0 0 0" rpy="0 0 0" />
26 <inertia ixx="0.03" iyy="0.03" izz="0.03" ixy="0.0" ixz="0.0" iyz="0.0" />
27 </inertial>
XML
Tab Width: 8
Ln 271, Col 1
INS
"poppy_ergo_jr.urdf" selected (9.0 kB)

paste code


Activities
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9 7 00:21
*poppy_ergo_jr.urdf
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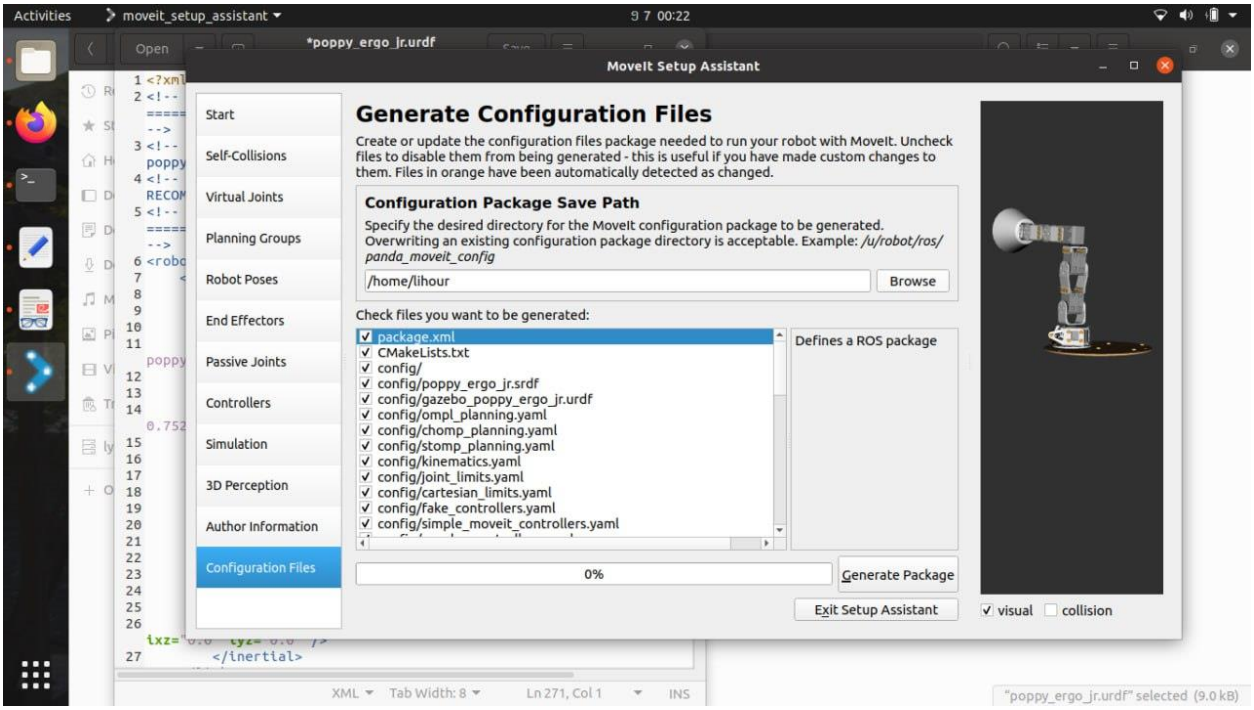
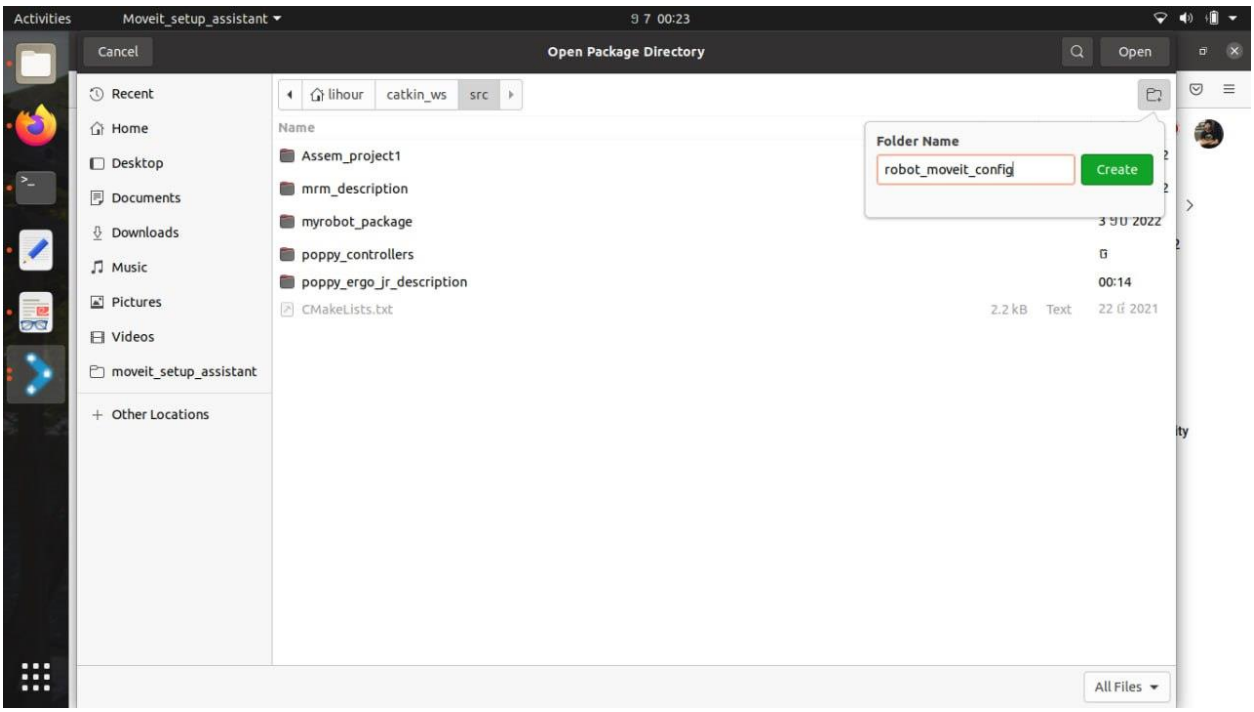
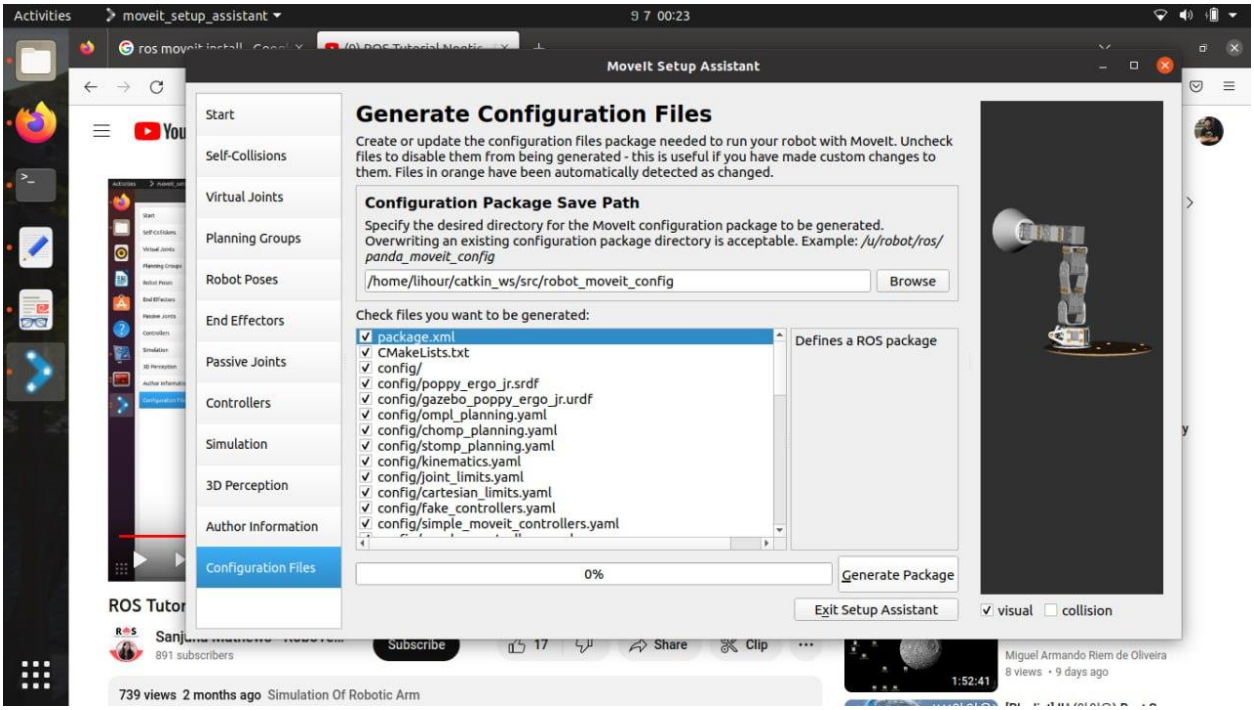
Author Information
Configuration Files
Specify Author Information
Input contact information of the author and initial maintainer of the generated package. catkin requires valid details in the package's package.xml
Name of the maintainer of this MoveIt configuration:
lihour
Email of the maintainer of this MoveIt configuration:
lyhour457@gmail.com
visual
collision
XML
Tab Width: 8
Ln 271, Col 1
INS
"poppy_ergo_jr.urdf" selected (9.0 kB)

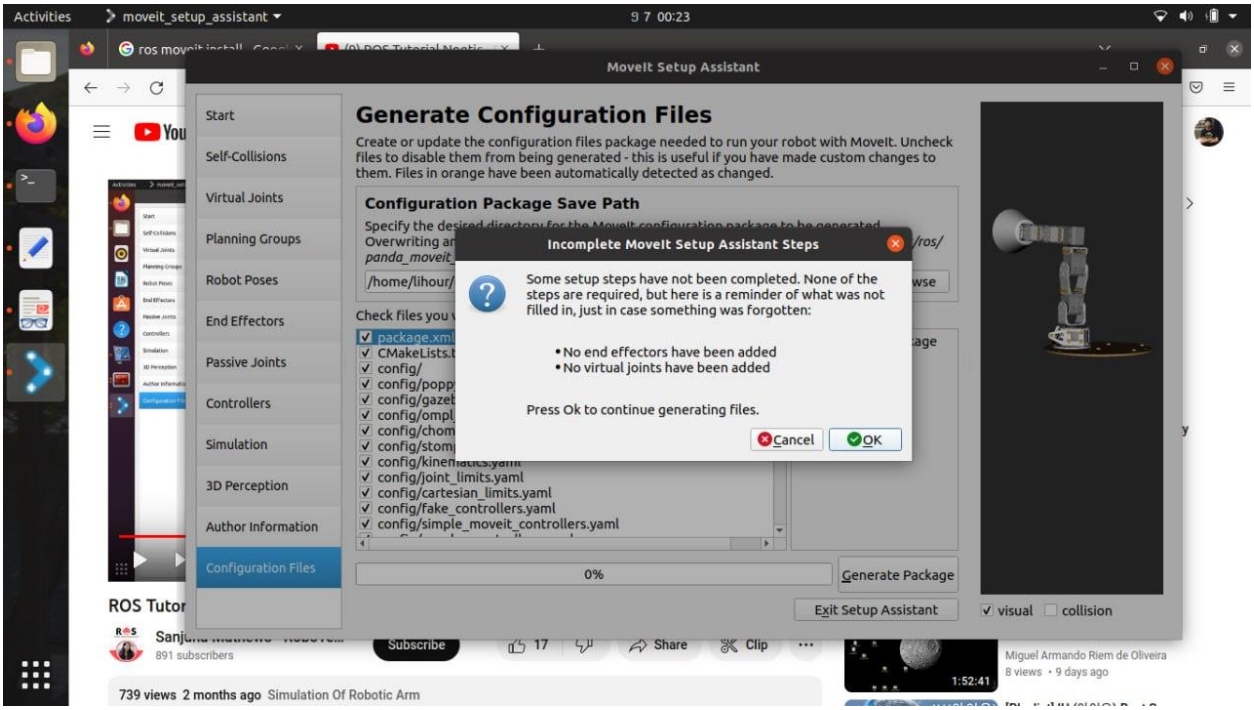




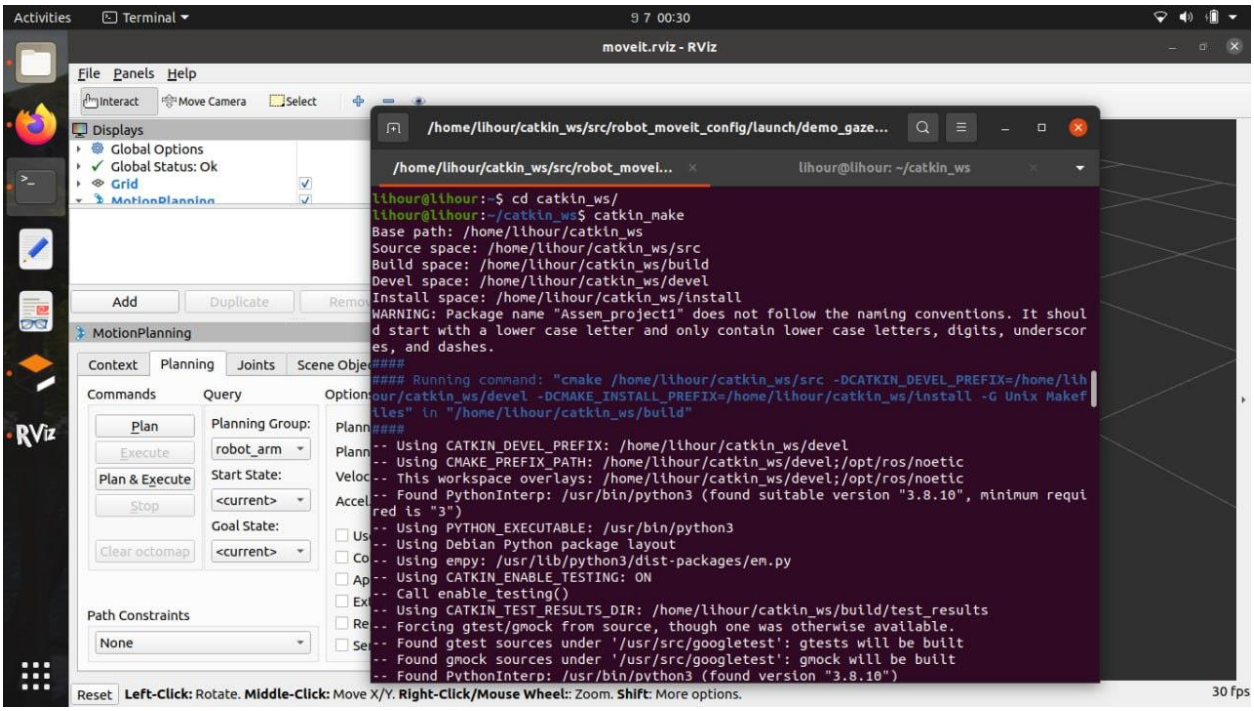
Create folder name and click open



Click generate package

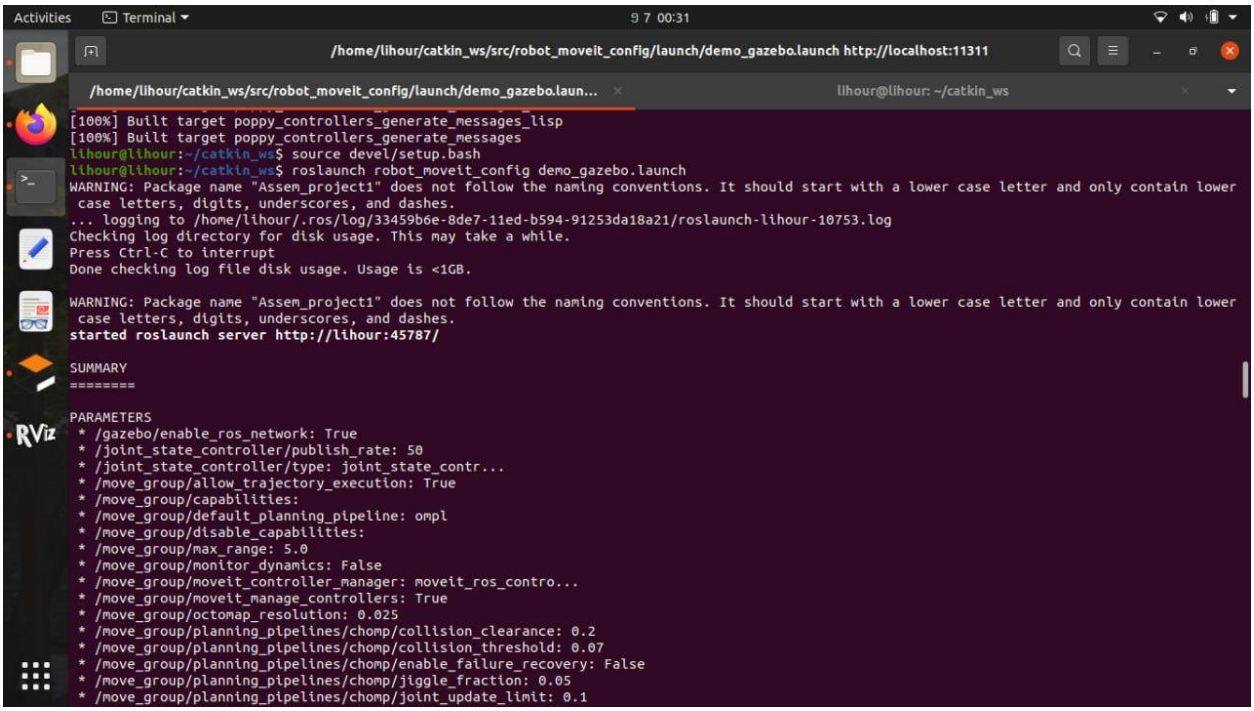


Click OK



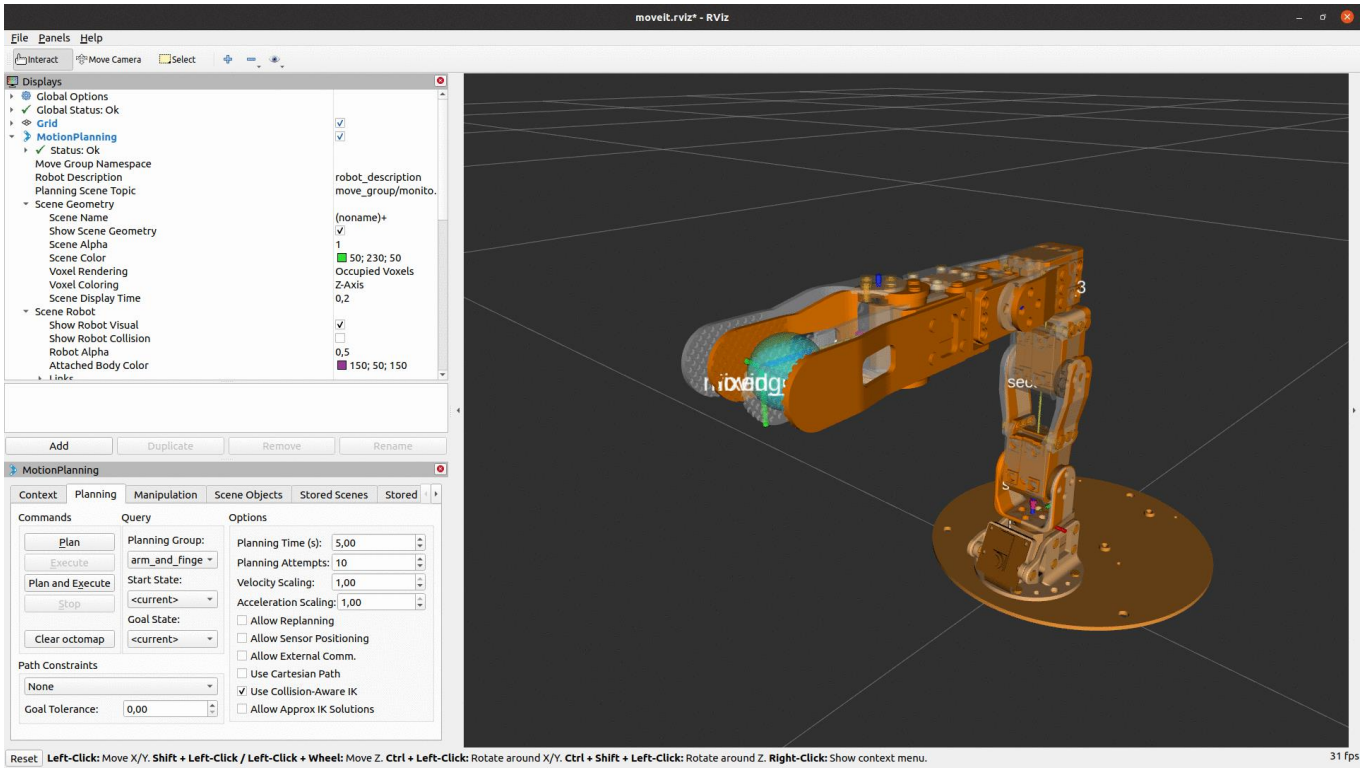
$ cd catkin_ws/

catkin_make



source devel/setup.bash

roslaunch


moveit.rviz* - RViz
File Panels Help
Interact
Move Camera
Select
Displays
Global Options
Global Status: Ok
Grid
MotionPlanning
Status: Ok
Move Group Namespace
Robot Description
robot_description
Planning Scene Topic
move_group/monito.
Scene Geometry
Scene Name
(noname)+
Show Scene Geometry
Scene Alpha
1
Scene Color
50; 230; 50
Voxel Rendering
Occupied Voxels
Voxel Coloring
Z-Axis
Scene Display Time
0,2
Scene Robot
Show Robot Visual
Show Robot Collision
Robot Alpha
0,5
Attached Body Color
150; 50; 150
Add
Duplicate
Remove
Rename
MotionPlanning
Context
Planning
Manipulation
Scene Objects
Stored Scenes
Stored
Commands
Plan
Execute
Plan and Execute
Stop
Clear octomap
Query
Planning Group:
arm_and_finge
Start State:
<current>
Goal State:
<current>
Options
Planning Time (s):
5,00
Planning Attempts:
10
Velocity Scaling:
1,00
Acceleration Scaling:
1,00
Allow Replanning
Allow Sensor Positioning
Allow External Comm.
Use Cartesian Path
Use Collision-Aware IK
Allow Approx IK Solutions
Path Constraints
None
Goal Tolerance:
0,00
Reset
Left-Click: Move X/Y. Shift + Left-Click / Left-Click + Wheel: Move Z. Ctrl + Left-Click: Rotate around X/Y. Ctrl + Shift + Left-Click: Rotate around Z. Right-Click: Show context menu.
31 fps