URDF Mobile Robot and MoveIt! Controlled Robot Arm

How to Install MoveIt! on ROS Melodic

It seems there is a bug in installing MoveIt! package on ROS Melodic via its binary packages, which has not been resolved by the ROS community. Therefore, the installation method presented on Part II might not work. I tried the binary installation in August 2020 which was successful. However, I tried it again recently but failed with a bug, no resolution suggested by the community. I suggest the following installation.

An alternative way is to install the source files of MoveIt package and then compile it. I am successful in this way on 27/10/2020, and summarise the steps shown below.

```
$ cd ~

$ mkdir ws_moveit

$ cd ~/ws_moveit

$ wstool init src

$ wstool merge -t src https://raw.githubusercontent.com/ros-planning/
moveit/master/moveit.rosinstall

$ wstool update -t src

$ rosdep install -y --from-paths src --ignore-src --rosdistro ${ROS_D
ISTRO}

$ sudo apt-get install ros-$ROS_DISTRO-catkin python-catkin-tools

$ catkin config --extend /opt/ros/${ROS_DISTRO} --cmake-args -DCMAKE_
BUILD_TYPE=Release

$ cd ~/ws_moveit/src

$ git clone https://github.com/Zhijun2/robot_description.git

$ cd ..

$ catkin build

$ source devel/setup.bash
```

The above steps should install ROS MoveIt! package successfully in your virtual machine.

The process will take a little bit more than 1 hour.

Make sure you can install the package better before our Thursday session. We can discuss any questions in WhatsApp. Good luck!