

# MARS LAB 3

**NAME - ROSHIT SHARMA**  
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## SCREENSHOTS

```
pes1ug23cs489@pes1ug23cs489-Lenovo-IdeaPad-S340-14API:~$ sudo apt install ros-jazzy-urdf-tutorial
[sudo] password for pes1ug23cs489:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following package was automatically installed and is no longer required:
  liblvm19
Use 'sudo apt autoremove' to remove it.
The following additional packages will be installed:
  ros-jazzy-joint-state-publisher ros-jazzy-joint-state-publisher-gui
  ros-jazzy-urdf-launch ros-jazzy-xacro
The following NEW packages will be installed:
  ros-jazzy-joint-state-publisher ros-jazzy-joint-state-publisher-gui
  ros-jazzy-urdf-launch ros-jazzy-urdf-tutorial ros-jazzy-xacro
0 upgraded, 5 newly installed, 0 to remove and 0 not upgraded.
Need to get 802 kB of archives.
After this operation, 1,379 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://packages.ros.org/ros2/ubuntu noble/main amd64 ros-jazzy-joint-state-publisher amd64 2.4.0-3noble.20251025.083345 [18.1 kB]
Get:2 http://packages.ros.org/ros2/ubuntu noble/main amd64 ros-jazzy-joint-state-publisher-gui amd64 2.4.0-3noble.20251025.083421 [16.9 kB]
Get:3 http://packages.ros.org/ros2/ubuntu noble/main amd64 ros-jazzy-xacro amd64
```

```
Get:3 http://packages.ros.org/ros2/ubuntu noble/main amd64 ros-jazzy-xacro amd64  
2.1.1-1noble.20250829.085822 [29.4 kB]  
Get:4 http://packages.ros.org/ros2/ubuntu noble/main amd64 ros-jazzy-urdf-launch  
amd64 0.1.1-3noble.20251108.005257 [6,422 B]  
Get:5 http://packages.ros.org/ros2/ubuntu noble/main amd64 ros-jazzy-urdf-tutorial  
amd64 1.1.0-3noble.20251108.010554 [731 kB]  
Fetched 802 kB in 7s (111 kB/s)  
Selecting previously unselected package ros-jazzy-joint-state-publisher.  
(Reading database ... 236093 files and directories currently installed.)  
Preparing to unpack .../ros-jazzy-joint-state-publisher_2.4.0-3noble.20251025.08  
3345_amd64.deb ...  
Unpacking ros-jazzy-joint-state-publisher (2.4.0-3noble.20251025.083345) ...  
Selecting previously unselected package ros-jazzy-joint-state-publisher-gui.  
Preparing to unpack .../ros-jazzy-joint-state-publisher-gui_2.4.0-3noble.2025102  
5.083421_amd64.deb ...  
Unpacking ros-jazzy-joint-state-publisher-gui (2.4.0-3noble.20251025.083421) ...  
Selecting previously unselected package ros-jazzy-xacro.  
Preparing to unpack .../ros-jazzy-xacro_2.1.1-1noble.20250829.085822_amd64.deb .  
..  
Unpacking ros-jazzy-xacro (2.1.1-1noble.20250829.085822) ...  
Selecting previously unselected package ros-jazzy-urdf-launch.  
Preparing to unpack .../ros-jazzy-urdf-launch_0.1.1-3noble.20251108.005257_amd64  
.deb ...  
Unpacking ros-jazzy-urdf-launch (0.1.1-3noble.20251108.005257) ...
```

```
Unpacking ros-jazzy-urdf-launch (0.1.1-3noble.20251108.005257) ...  
Selecting previously unselected package ros-jazzy-urdf-tutorial.  
Preparing to unpack .../ros-jazzy-urdf-tutorial_1.1.0-3noble.20251108.010554_amd  
64.deb ...  
Unpacking ros-jazzy-urdf-tutorial (1.1.0-3noble.20251108.010554) ...  
Setting up ros-jazzy-xacro (2.1.1-1noble.20250829.085822) ...  
Setting up ros-jazzy-joint-state-publisher (2.4.0-3noble.20251025.083345) ...  
Setting up ros-jazzy-joint-state-publisher-gui (2.4.0-3noble.20251025.083421) ..  
.  
Setting up ros-jazzy-urdf-launch (0.1.1-3noble.20251108.005257) ...  
Setting up ros-jazzy-urdf-tutorial (1.1.0-3noble.20251108.010554) ...  
pes1ug23cs489@pes1ug23cs489-Lenovo-IdeaPad-S340-14API:~$ ros2 pkg list | grep ur  
df_tutorial  
urdf_tutorial
```

```
pes1ug23cs489@pes1ug23cs489-Lenovo-IdeaPad-S340-14API:~$ source /opt/ros/jazzy/s  
etup.bash  
pes1ug23cs489@pes1ug23cs489-Lenovo-IdeaPad-S340-14API:~$ echo "source /opt/ros/j  
azzy/setup.bash" >> ~/.bashrc  
pes1ug23cs489@pes1ug23cs489-Lenovo-IdeaPad-S340-14API:~$
```





