7.Scene design

1.Robotic arm rviz simulation motion

- **Virtual machine simulation starts**

Start MoveIT (virtual machine side)

```
roslaunch dofbot_config demo.launch
```

Open another terminal and enter the command line. (This program is simulated in rviz, the real machine will not move) (Virtual machine side)

```
cd dofbot_ws/
source devel/setup.bash
rosrun dofbot_moveit 04_Set_Scene.py     # python file
```

- **Real machine starts**

```
roslaunch dofbot_config demo.launch         #Virtual machine side
rosrun dofbot_moveit 00_dofbot_move.py      #Host side
rosrun dofbot_moveit  04_Set_Scene.py      #Virtual machine side
```

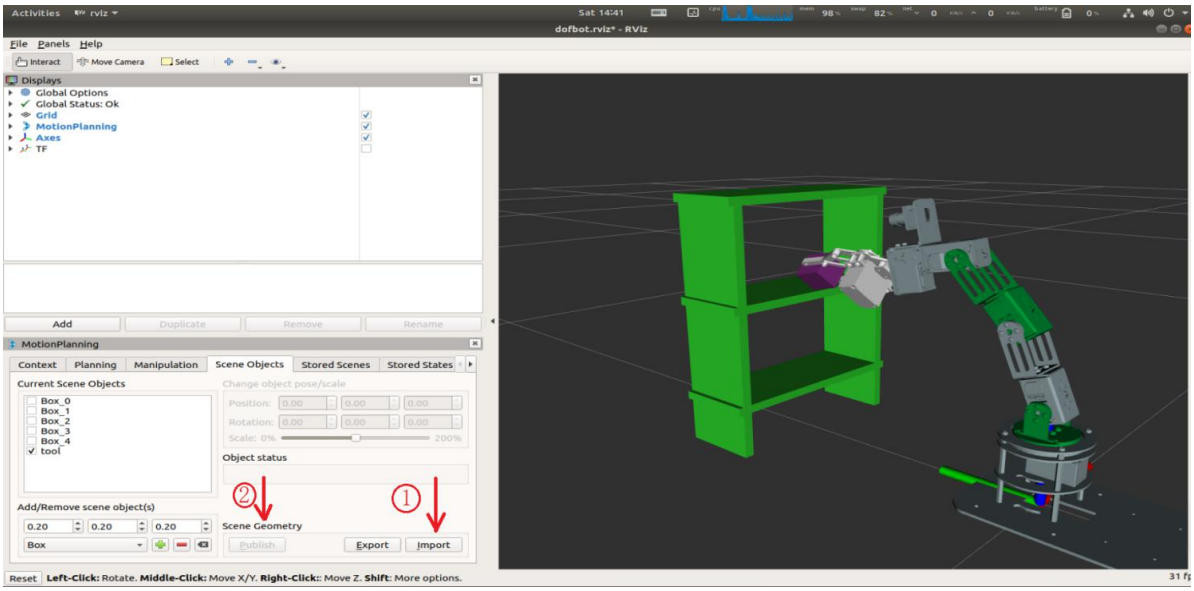
The corresponding relationship between the robotic arm servo and the joints: from the lowest end of the robotic arm to the end of the gripper.

Close case: [ctrl+c] to close. If it cannot be closed, execute [ctrl+z] again.

First import the pre-planned scene.

The import method is as shown in the figure: The first step is to click [Import] and select the scene dofbot_ws/src/dofbot_config/scene/shape.scene; the second step is to complete the previous step.

Click [Publish] to take effect.



Close case: [ctrl+c] to close. If it cannot be closed, execute [ctrl+z] again. To clear obstacles, click [x] to delete all obstacles.

Code path: dofbot_ws/src/dofbot_moveit/scripts/04_Set_Scene.py

Experimental phenomenon: The robot arm performs sorting collision detection movement in rviz as shown in the figure above.