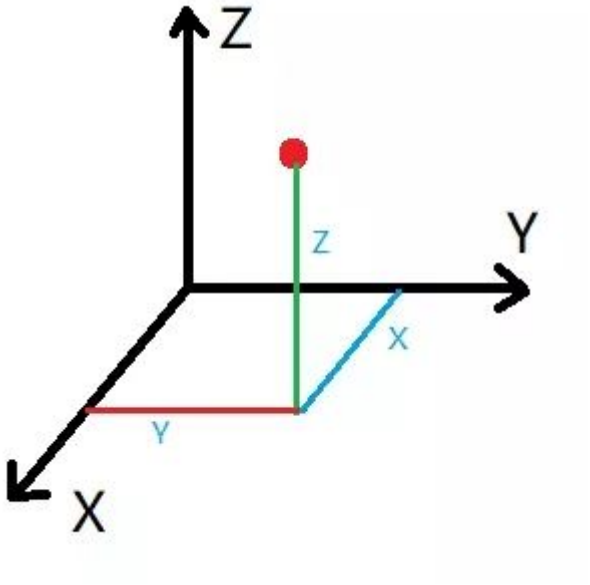
5、Movelt cartesian path

5.1、Introduction

The Cartesian coordinate system is a general term for the rectangular coordinate system and the oblique coordinate system.

The Cartesian path is actually the line connecting any two points in space.



5.2、 Start

1.Start roscore

Open the system terminal and enter the following command. If roscore is already started, you do not need to start it again.

```
roscore
```

2.Simulation Start

Open another terminal.

- If it is a Jetson Nano motherboard, you need to start the virtual machine first and run the program on the virtual machine. If it is a Jetson Orin NX or Jetson Orin Nano motherboard, run the program directly in the system terminal.
- Enter the following command to start the program

```
roslaunch jetcobot_moveit jetcobot_moveit.launch
```

3.Driving real machine

Open another terminal.

- If it is a Jetson Nano motherboard, you need to run the program on Jetson Nano. If it is a Jetson Orin NX or Jetson Orin Nano motherboard, run the program directly in the system terminal.
- Enter the following command to start the program

```
rosrun jetcobot_moveit sync_plan.py
```

Note: After the program driving the real machine is running, the robotic arm will follow the movement of the simulated robot.

Please be careful not to place other objects around to avoid being hit by the robotic arm.

4.Run program

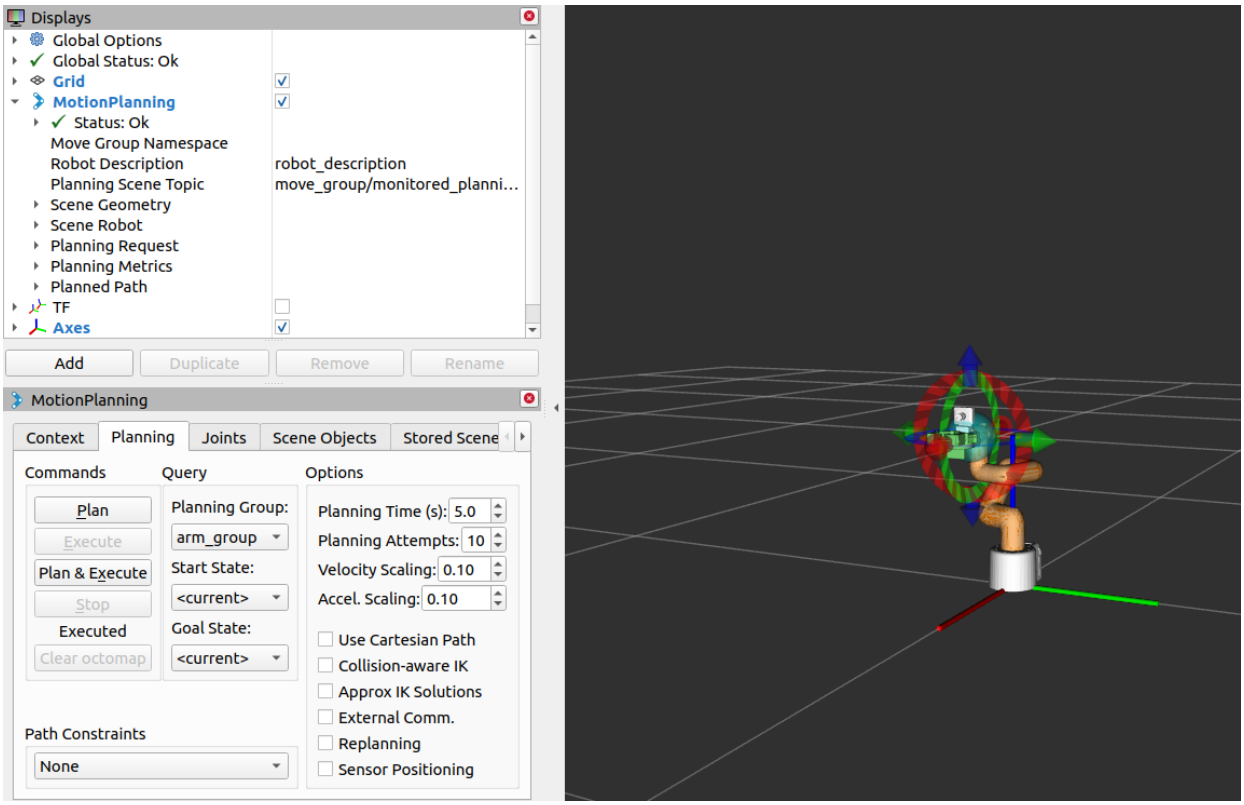
Open another terminal.

- If it is a Jetson Nano motherboard, you need to run the program on Jetson Nano. If it is a Jetson Orin NX or Jetson Orin Nano motherboard, run the program directly in the system terminal.
- Enter the following command to start the program

```
rosrun jetcobot_moveit 04_cartesian.py
```

Code path：~/jetcobot_ws/src/jetcobot_moveit/scripts/04_cartesian.py

Experimental phenomenon: We can see that the robotic arm in rviz will randomly search for the target point and move.



Close the process: Press [ctrl+c].

If it fails to close, press [ctrl+z].