

7、MoveIt scene design

7.1、RVIZ simulation motion of robotic arm

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

```
roslaunch 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

```
roslaunch jetcobot_moveit 06_set_Scene.py
```

Code path: ~/jetcobot_ws/src/jetcobot_moveit/scripts/06_set_Scene.py

Experimental phenomenon: Display a scene in rviz where the robotic arm performs simulated actions of moving building blocks.

