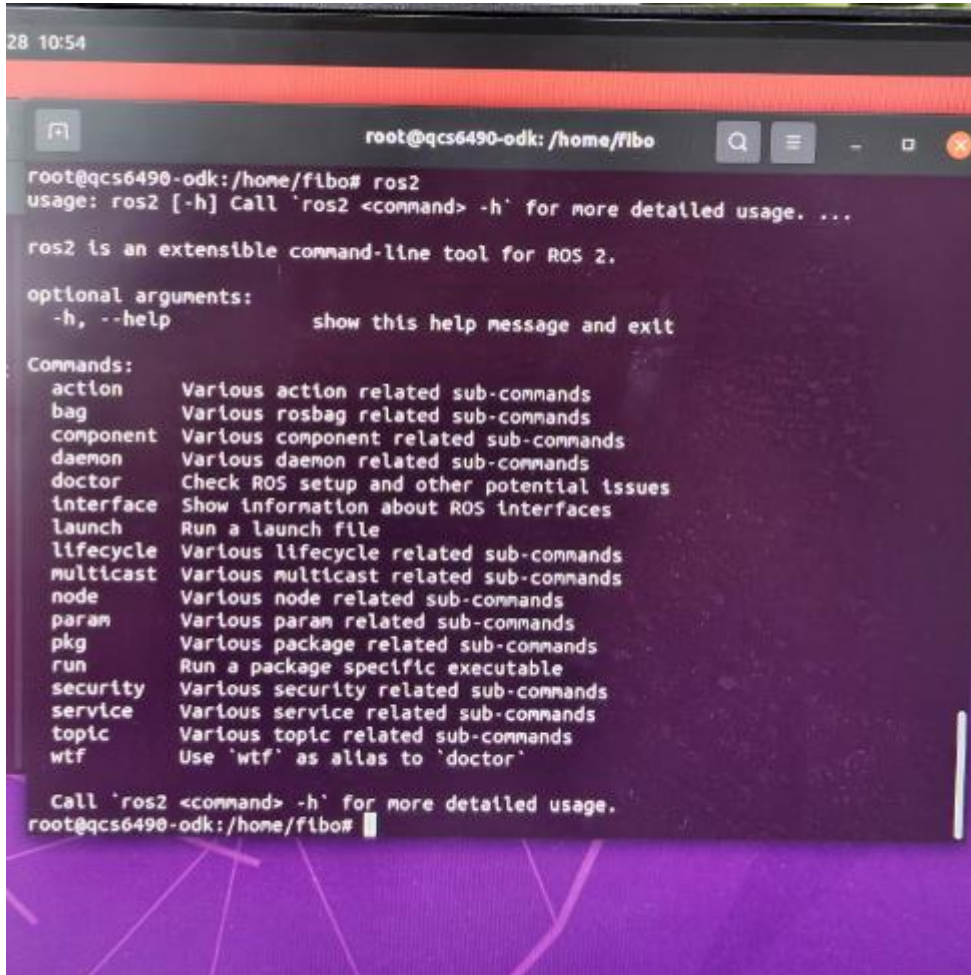


ROS2 功能测试（SC171 开发套件 V3）

V1.1

- 1、注：使用 ROS2 功能，SC171 开发套件需连接显示器
- 2、在 ROS 中，Turtlesim 是一个经典的小乌龟模拟器，它为我们提供了一个直观、简单的环境来熟悉和掌握 ROS 的各种操作命令。本文将通过 Turtlesim, 带领大家深入了解 ROS2 的基础操作。
- 3、SC171 开发套件已默认安装 ROS2 (ROS2 的版本: Galactic), 并且已做好环境配置。可以在终端输入: ros2, 查看是否成功安装 ros2

A terminal window with a dark background and light text. The window title is 'root@qcs6490-odk: /home/fibo'. The prompt is 'root@qcs6490-odk:/home/fibo#'. The user has entered 'ros2', and the terminal displays the help message for the ros2 command. The output includes the usage, a description of ros2 as an extensible command-line tool, optional arguments (-h, --help), and a list of commands with their descriptions. The prompt is now 'root@qcs6490-odk:/home/fibo#'.

```
28 10:54
root@qcs6490-odk: /home/fibo
root@qcs6490-odk:/home/fibo# ros2
usage: ros2 [-h] Call 'ros2 <command> -h' for more detailed usage. ...

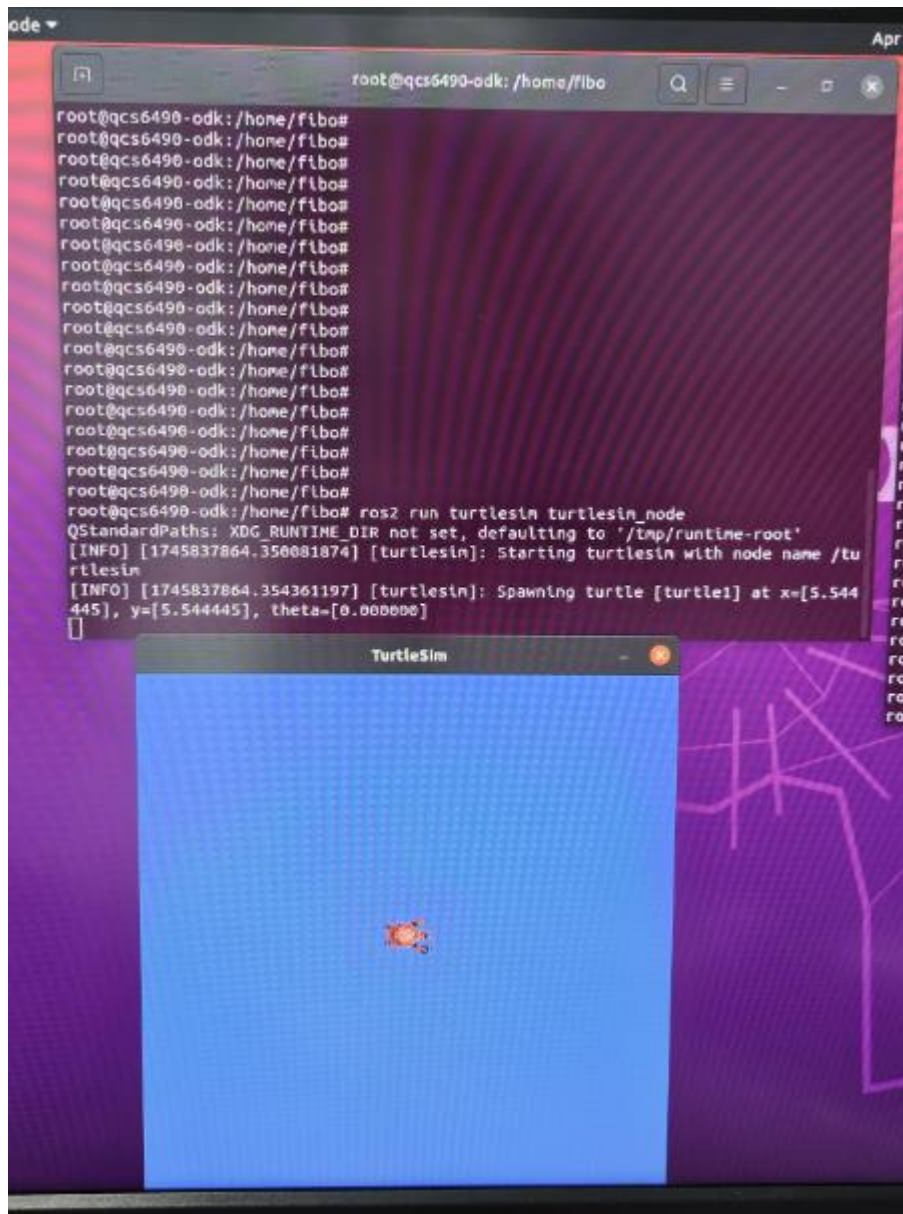
ros2 is an extensible command-line tool for ROS 2.

optional arguments:
  -h, --help            show this help message and exit

Commands:
  action                Various action related sub-commands
  bag                   Various rosbag related sub-commands
  component             Various component related sub-commands
  daemon               Various daemon related sub-commands
  doctor                Check ROS setup and other potential issues
  interface             Show information about ROS interfaces
  launch               Run a launch file
  lifecycle             Various lifecycle related sub-commands
  multicast             Various multicast related sub-commands
  node                 Various node related sub-commands
  param                Various param related sub-commands
  pkg                  Various package related sub-commands
  run                  Run a package specific executable
  security             Various security related sub-commands
  service              Various service related sub-commands
  topic                Various topic related sub-commands
  wtf                  Use 'wtf' as alias to 'doctor'

Call 'ros2 <command> -h' for more detailed usage.
root@qcs6490-odk:/home/fibo#
```

- 4、接下来，我们可以启动 Turtlesim。在终端中执行以下命令：
ros2 run turtlesim turtlesim_node
执行上述命令后，将会出现一个仿真环境，中心位置随机出现一只小乌龟。在仿真环境的上方，我们可以看到 turtle 的名字及其在仿真环境中的位置。



- 5、要控制 turtle 的移动，我们需要打开一个新的终端窗口，并执行以下命令：
- ```
ros2 run turtlesim turtle_teleop_key
```
- 执行上述命令后，我们就可以使用方向键来控制 turtle 的移动了。左右键是控制方向，上下键是控制前进和后退

