

ROS

- [ROS-SDK](#)
- [ROS demo](#)
- [Rviz](#)

ROS-SDK

ROS 支持

“

支持

- x64
- arm64

支持 RISC-V

ROS 支持:

Ubuntu 20.04

- ROS1: Noetic
- ROS2: Foxy, Galactic

Ubuntu 22.04

- ROS2: Humble, Iron

支持 Ubuntu 18.04

支持 Ubuntu 18.04 支持 Docker 支持 Ubuntu 18.04 支持 USI

“ 支持, 支持 ROS, 支持 source 支持. 支持

SDK 支持, 支持

```
wget -O hextool.bash https://ros.dl.hexmove.cn/ros.dl/hextool.bash && bash hextool.bash
```

“ 支持, 支持 Ubuntu 支持, 支持.

XXXXXXXX

XXXX

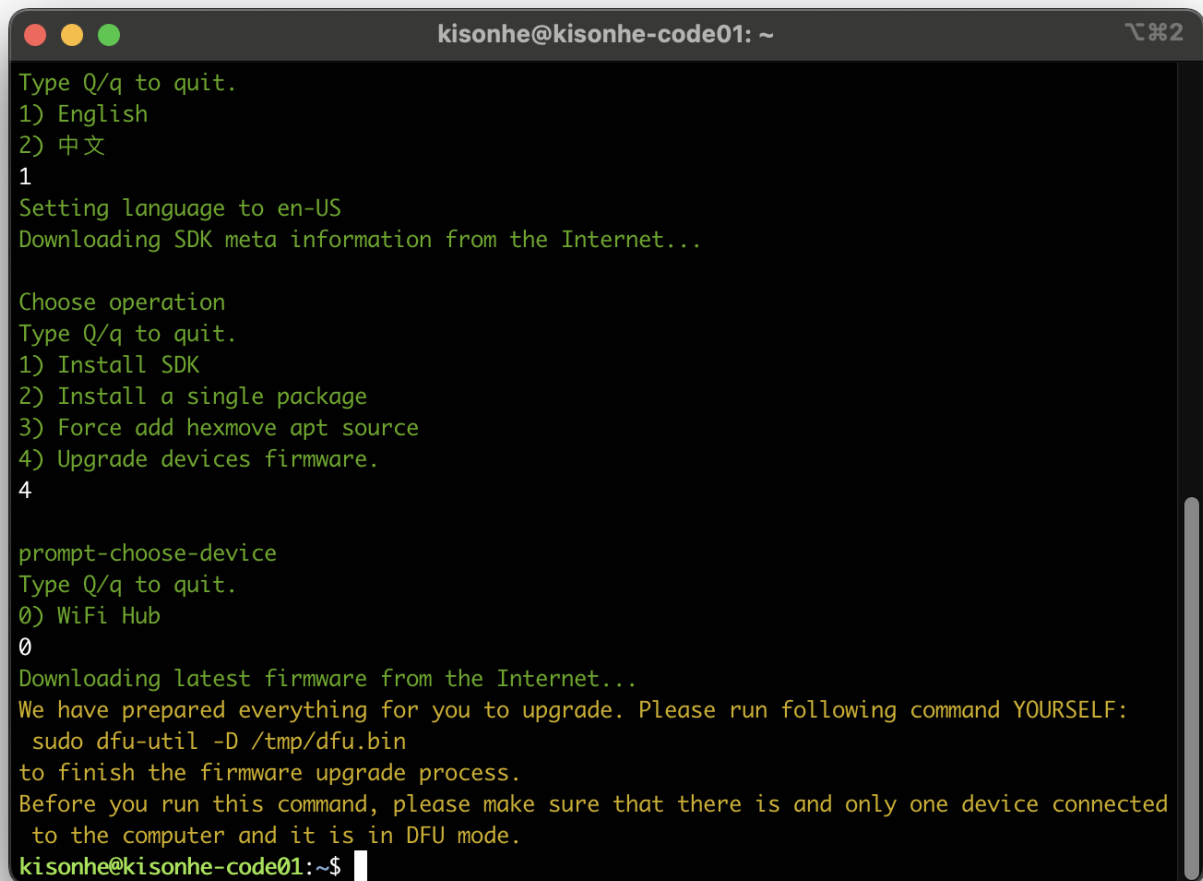
- 1. XXXXXXXXROSXXXsource
- 2. XXCAN HUBXXXXXXXXXXXX

XXCAN HUBXXXX

- 1. XXXXCAN HUBXXXXXXXXXCAN HUBXXXX
- 2. XXXXXXXXXXXXUSBXXX Ubuntu XXXXHUBXXXXXXXXXXXXXXXXHUBXXXXXXXXXXXXXXXXXXXXXXXXXUSBXXXX



3. 40:WiFiHub



```
kisonhe@kisonhe-code01: ~
Type Q/q to quit.
1) English
2) 中文
1
Setting language to en-US
Downloading SDK meta information from the Internet...

Choose operation
Type Q/q to quit.
1) Install SDK
2) Install a single package
3) Force add hexmove apt source
4) Upgrade devices firmware.
4

prompt-choose-device
Type Q/q to quit.
0) WiFi Hub
0
Downloading latest firmware from the Internet...
We have prepared everything for you to upgrade. Please run following command YOURSELF:
  sudo dfu-util -D /tmp/dfu.bin
to finish the firmware upgrade process.
Before you run this command, please make sure that there is and only one device connected
to the computer and it is in DFU mode.
kisonhe@kisonhe-code01:~$
```


- SDK[], [] SDK[] ORCS-MCNM []

```
Downloading SDK meta information from the Internet...
```

```
Choose operation
```

```
Type Q/q to quit.
```

- 1) Install SDK
- 2) Install a single package
- 3) Force add hexmove apt source

```
1
```

```
Please choose the product category you brought:
```

```
Type Q/q to quit.
```

```
0) ARK
```

```
Contains: ARK-MINI, ARK
```

```
1) HAMMER
```

```
Contains: HAMMER-80
```

```
2) TRIGGER
```

```
Contains: FIBOT, TRIGGER-A, TRIGGER-X
```

```
3) RAY
```

```
Contains: RAY
```

```
4) NEOS
```

```
Contains: NEOS
```

```
5) ORCS
```

```
Contains: ORCS-DIFF, ORCS-MCNM-PRO, ORCS-MCNM, ORCS-MINI
```

```
[ ]
```

```
Contains: ARK-MINI, ARK
```

```
1) HAMMER
```

```
Contains: HAMMER-80
```

```
2) TRIGGER
```

```
Contains: FIBOT, TRIGGER-A, TRIGGER-X
```

```
3) RAY
```

```
Contains: RAY
```

```
4) NEOS
```

```
Contains: NEOS
```

```
5) ORCS
```

```
Contains: ORCS-DIFF, ORCS-MCNM-PRO, ORCS-MCNM, ORCS-MINI
```

```
5
```

```
Please choose SDK to install:
```

```
Type Q/q to quit.
```

```
5) ORCS-DIFF
```

```
ROS Dev kit for the ORCS-DIFF Robot, chassis only
```

```
6) ORCS-MCNM-PRO
```

```
ROS Dev kit for the ORCS-MCNM-PRO Robot, chassis only
```

```
7) ORCS-MCNM
```

```
ROS Dev kit for the ORCS-MCNM Robot, chassis only
```

```
8) ORCS-MINI
```

```
ROS Dev kit for the ORCS-MINI Robot, chassis only
```

```
7 [ ]
```

- []

```
3) RAY
```

```
Contains: RAY
```

```
4) NEOS
```

```
Contains: NEOS
```

```
5) ORCS
```

```
Contains: ORCS-DIFF, ORCS-MCNM-PRO, ORCS-MCNM, ORCS-MINI
```

```
5
```

- 

```
[100%] Linking CXX executable /home/kisonhe/Desktop/sdk_orcs_mcnm_ws/devel/lib/pkg_vehicle/xnode_vehicle
[100%] Built target xnode_vehicle
Base path: /home/kisonhe/Desktop/sdk_orcs_mcnm_ws
Source space: /home/kisonhe/Desktop/sdk_orcs_mcnm_ws/src
Build space: /home/kisonhe/Desktop/sdk_orcs_mcnm_ws/build
Devel space: /home/kisonhe/Desktop/sdk_orcs_mcnm_ws/devel
Install space: /home/kisonhe/Desktop/sdk_orcs_mcnm_ws/install
Creating symlink "/home/kisonhe/Desktop/sdk_orcs_mcnm_ws/src/CMakeLists.txt" pointing to "/opt/ros/noetic/share/catkin/cmake/toplevel.cmake"
####
#### Running command: "cmake /home/kisonhe/Desktop/sdk_orcs_mcnm_ws/src -DCATKIN_DEVEL_PREFIX=/home/kisonhe/Desktop/sdk_orcs_mcnm_ws/devel -DCMAKE_INSTALL_PREFIX=/home/kisonhe/Desktop/sdk_orcs_mcnm_ws/install -G Unix Makefiles" in "/home/kisonhe/Desktop/sdk_orcs_mcnm_ws/build"
####
####
#### Running command: "make -j4 -l4" in "/home/kisonhe/Desktop/sdk_orcs_mcnm_ws/build"
####
SDK sdk_orcs_mcnm_ws compiled and tested successfully.
Before starting to use the SDK, please source the setup.bash file in the SDK directory :)
```

SDK

 ORCS-DIFF .

```
root@1c2edac84f0b:~# tree -d -L 5
```

```
.
├── sdk_orcs_diff_ws
│   ├── src
│   │   ├── demo
│   │   │   ├── demo_general_chassis
│   │   │   ├── demo_vehicle
│   │   │   └── tools
│   │   └── drivers
│   │       ├── xpkg_vehicle
│   │       │   ├── include
│   │       │   ├── ini
│   │       │   ├── launch
│   │       │   ├── scripts
│   │       │   └── src
```

14 directories

- demo 包: 包 demo launch 包, 包 launch 包.

“ 包, demo 包 launch 包. 包 launch 包 launch 包

- drivers 包: 包, 包(包), 包
- urdf 包: 包 URDF
- 包 apt 包
 - ros-\$ROS_DISTRO-xpkg-comm 包
 - ros-\$ROS_DISTRO-xpkg-msgs 包

包, 包 demo 包.

包SDK包

包[ROS demo](#)

ROS demo



CAN CAN

“ ROS ROS2 ROS

1. ROS-SDK SDK
- 2.
3. source
4. CAN-COM HUB CAN
 - lsusb
5. CAN

“



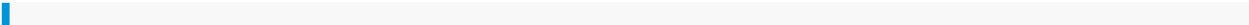
“ ,

demo

- * demo_basic_ctrl.launch
- * demo_key_ctrl.launch

demo_basic_ctrl.launch /cmd_vel

demo_key_ctrl.launch turtle_teleop_key turtlesim turtlesim



[illegible]

launch

```
[ INFO] [1714662015.789025136]: xnode_vehicle: Vehicle online
[ INFO] [1714662015.789215455]: xnode_vehicle: CAN mode locked
[ INFO] [1714662016.189858534]: xnode_vehicle: mode OK(CAN mode)
[ INFO] [1714662016.789707014]: xnode_vehicle: Vehicle enable
[ INFO] [1714662016.789779160]: xnode_vehicle: Device type = MARK1_DIFF
[ INFO] [1714662016.789801928]: xnode_vehicle: ### Vehicle init finish ###
[ INFO] [1714662017.290447759]: xnode_vehicle: cal_mode = odom ||| model = Di
fferential
[ INFO] [1714662017.290510966]: xnode_vehicle: track_width = 0.520m ||| wheel
_base = 0.410m
[ INFO] [1714662017.290542395]: xnode_vehicle: ### Odom init finish ###
[ INFO] [1714662017.290570052]: xnode_vehicle: ===== VEHICLE READY TO G
0 =====
```








```
launch msg src/drivers/xpkg_vehicle/README.md
```

- calc_speed true false 
- mode_can_lock  CAI true 

!!!note mode_can_lock false

- rate x

lau rostopic list ROS

- /odom nav_msgs/Odometry 
- /tf tf2_msgs/TFMessage tflaunch
- /cmd_vel geometry_msgs/Twist linear.x linear.y angular.z 

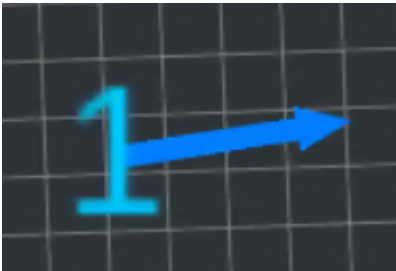
Rviz

ROS1

MARKER SETTING

Set marker scale on map1.00SET

1.0set



marker

ADD GOAL

Tips:use 2D Nav Goal first,then adjust param below

Maximum goal distance for auto insert goal(m):10.0

X(m):-3.185Y(m):-3.190R(°):52.262

GOTOADD GOAL TO LIST

2D Nav Goal

DELETE ALL GOAL

MODE

☐ CYCLE MODE

☐ SEQUENCE MODE

☒ STEP MODE

Goal tolerance for cycle and sequence mode (m)

2.000

cycle mode	
sequence mode	
step mode	

Goal tolerance

CONTROLLER

☐ REVERSE

NEXT GOAL:

START/CONTINUE

STOP

- REVERSE
- START

STOP

NEXT GOAL