

ROS

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

ROS-SDK

ROS

“

支持

- x64
- arm64

支持 RISC-V

ROS:

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 Ubuntu 18.04

“ 支持, 支持 ROS, 支持 source 支持. 支持

SDK zip [apt.hexfellow.com] [ros-\$ROS_DISTRO-xpkg-msgs] [ros-\$ROS_DISTRO-xpkg-comm] [dpkg -i] [apt hexfellow apt] ROS CPU

- Humble / Ubuntu 22.04 / x86_64
 - [ros-humble-xpkg-msgs](#)
 - [ros-humble-xpkg-comm](#)
- Humble / Ubuntu 22.04 / arm64

- [ros-humble-xpkg-msgs](#)
- [ros-humble-xpkg-comm](#)
- Iron / Ubuntu 22.04 / x86_64
 - [ros-iron-xpkg-msgs](#)
 - [ros-iron-xpkg-comm](#)
- Iron / Ubuntu 22.04 / arm64
 - [ros-iron-xpkg-msgs](#)
 - [ros-iron-xpkg-comm](#)
- Noetic / Ubuntu 20.04 / x86_64
 - [ros-noetic-xpkg-msgs](#)
 - [ros-noetic-xpkg-comm](#)
- Noetic / Ubuntu 20.04 / arm64
 - [ros-noetic-xpkg-msgs](#)
 - [ros-noetic-xpkg-comm](#)

□ Humble / x86_64 □□

```
# □□□□ ROS□□ Ubuntu/ROS □□□□ hexfellow apt□
source /opt/ros/humble/setup.bash
sudo dpkg -i ros-humble-xpkg-msgs_*.deb ros-humble-xpkg-comm_*.deb
sudo apt-get -f install -y # □□ ROS □□
```

□□□□□□ imu / vehicle / arm [files/ros-sdk/debs/](#)□□ SDK □□□ msgs + comm□□ deb □□
 Noetic□20.04□Humble/Iron□22.04□□□□□□ Foxy/Galactic □□□ xpkg deb□□□ Noetic □ Humble□

□□□□□□□□□□□□ SDK □□□□□□ hextool.bash / rosd□□

- [TRIGGER-A](#) — sdk_trigger_a_ws.zip
- [TRIGGER-X](#) — sdk_trigger_x_ws.zip
- [ORCS-DIFF](#) — sdk_orcs_diff_ws.zip
- [ORCS-MCNM](#) — sdk_orcs_mcnm_ws.zip
- [ORCS-MCNM-PRO](#) — sdk_orcs_mcnm_pro_ws.zip
- [ORCS-MINI](#) — sdk_orcs_mini_ws.zip
- [NEOS](#) — sdk_neos_ws.zip
- [ARK](#) — sdk_ark_ws.zip
- [ARK-MINI](#) — sdk_ark_mini_ws.zip
- [RAY](#) — sdk_ray_ws.zip
- [HAMMER-80](#) — sdk_hammer_80_ws.zip

- [ECHO](#) — sdk_ehco_ws.zip
- [ECHO-PLUS](#) — sdk_echo_plus_ws.zip
- [MARK1-DIFF](#) — sdk_mark1_diff_ws.zip
- [MARK1-MCNM](#) — sdk_mark1_mcnm_ws.zip
- [MARK1-MCNM-PRO](#) — sdk_mark1_mcnm_pro_ws.zip
- [MARK2-MCNM](#) — sdk_mark2_mcnm_ws.zip
- [FIBOT-4A](#) — sdk_fibot_4a_ws.zip
- [FIBOT-4X](#) — sdk_fibot_4x_ws.zip
- [XGO-P](#) — sdk_xgo_p_ws.zip

deb SDK ORCS-DIFF / ROS2 Humble

```
unzip sdk_orcs_diff_ws.zip
cd sdk_orcs_diff_ws
source /opt/ros/humble/setup.bash # ROS1 source /opt/ros/noetic/setup.bash
colcon build --symlink-install # ROS1 catkin_make
source install/setup.bash # ROS1 source devel/setup.bash
```

“ , Ubuntu , .

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
- └─ tools

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 deb 包 apt.hexfellow.com
 - 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

“



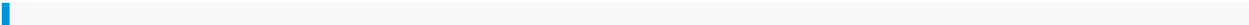
“ ,

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 1 0.2

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

LOAD GOAL

SAVE GOAL

SET NEXT GOAL

REFRESH MARKER

DELETE GOAL

DELETE ALL GOAL

No.	x(m)	y(m)	yaw(°)	
1	1	-12.869	3.281	7.203
2	2	-12.611	-3.862	-66.460
3	3	-3.185	-3.190	52.262

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