ROS-SDK

□□ ROS □□□

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> □□□□□
>
> - x64
> - arm64
>
> □□, □□□ RISCV
>
> □□□ROS□□□□:
>
> Ubuntu 20.04
>
> - ROS1: Noetic
> - ROS2: Foxy, Galactic
>
> Ubuntu 22.04
>
> - ROS2: Humble, Iron
>
> □□, □□□ Ubuntu18.04 □□□
>
> □□□□□□□ Ubuntu 18.04□□□ 18.04 □□□ Docker □□□□ Ubuntu □□□□□□□□ Ubuntu 1804 □□□□□□□□USE

> □□, □□□□□□□, □□□□□□ ROS. □ source □□□□□□□□□. □□□□□□□□□

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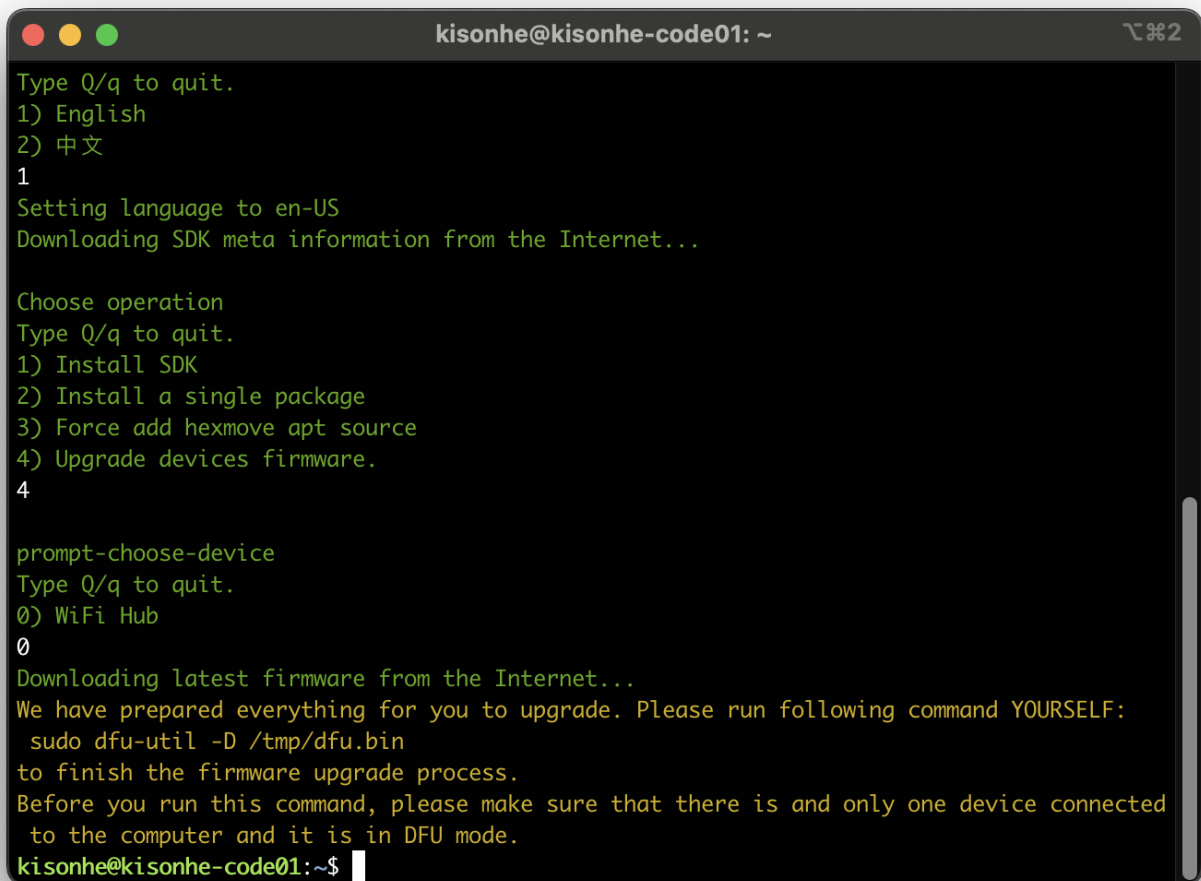
```
wget -O hextool.bash https://ros.dl.hexmove.cn/ros.dl/hextool.bash && bash hextool.bash
```

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1. □□□□□□□□□□ROS□□□source
2. □□□CAN HUB□□□□□□□□□□□□□□□

□□CAN HUB□□□□□□

1. □□□□□CAN HUB□□□□□□□□CAN HUB□□□□□□□□□
2. □□□□□□□□□□□□□USB□□□ Ubuntu □□□□□HUB□□□□□□□□□□□□□□□□□□HUB□□□□□□□□□□□□□□□□□□□□□□□□□USB□□□□□□

3. 选择 4 0:WiFiHub

```
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:~$
```

4. ☐☐☐☐☐☐☐☐☐☐☐☐☐


```
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:~$ sudo dfu-util -D /tmp/dfu.bin
dfu-util 0.9

Copyright 2005-2009 Weston Schmidt, Harald Welte and OpenMoko Inc.
Copyright 2010-2016 Tormod Volden and Stefan Schmidt
This program is Free Software and has ABSOLUTELY NO WARRANTY
Please report bugs to http://sourceforge.net/p/dfu-util/tickets/

Match vendor ID from file: 303a
Match product ID from file: 0009
Opening DFU capable USB device...
ID 303a:0009
Run-time device DFU version 0110
Claiming USB DFU Runtime Interface...
Determining device status: state = appIDLE, status = 0
Device really in Runtime Mode, send DFU detach request...
dfu-util: error detaching
Device will detach and reattach...
Opening DFU USB Device...
Claiming USB DFU Interface...
Setting Alternate Setting #0 ...
Determining device status: state = dfuIDLE, status = 0
dfuIDLE, continuing
DFU mode device DFU version 0110
Device returned transfer size 64
Copying data from PC to DFU device
Download          [                        ]   2%        24704 bytes
```

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- ☐☐ 1: Install SDK


```
2024-10-23 21:28:14 (136 KB/s) - '/tmp/hexmove/hex-tool/hex-tool' saved [626030
/6260368]

Setting language to en-US because LANG=en_US.UTF-8

 Hello! hex-tool is a command line tool developed by HexMove.
 It is mainly used to facilitate the installation of SDKs and other tools.
 The tool supports skipping compilation tests, directly specifying the installa
ion of a certain SDK, etc.
 (especially convenient for automatic environments such as docker).
 If you are interested, please refer to the comments in the bash script.


 DISCLAIMER: Docs to modify the script are provided as is.
 You can modify it as you like, but there is no guarantee that it will work as
xpected.


Downloading SDK meta information from the Internet...


Choose operation
Type Q/q to quit.
1) Install SDK
```

- SDK安装, SDK ORCS-MCNM 的软件

```
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
```

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```
[100%] Linking CXX executable /home/kisonhe/Desktop/sdk_orcs_mcnm_ws/devel/li
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"
nting to "/opt/ros/noetic/share/catkin/cmake/toplevel.cmake"
####
#### Running command: "cmake /home/kisonhe/Desktop/sdk_orcs_mcnm_ws/src -DCAT
_DEVEL_PREFIX=/home/kisonhe/Desktop/sdk_orcs_mcnm_ws/devel -DCMAKE_INSTALL_PR
X=/home/kisonhe/Desktop/sdk_orcs_mcnm_ws/install -G Unix Makefiles" in "/home
sonhe/Desktop/sdk_orcs_mcnm_ws/build"
####
####
#### Running command: "make -j4 -l4" in "/home/kisonhe/Desktop/sdk_orcs_mcnm_
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
ectory :)
```

SDK□□□□□□□□

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```
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 □□□: □□ demo launch □□, □□□□□□□□□□□□□□□ launch □□.

  > " □□, demo □□□□ launch □□□□□□□□□□□□□□. □□□□□ launch □□ launch □□

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

□□□□□□□□□, □□□□□□ demo □□□□□□□□□□□□.

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