



# **ED-HMI3010-185C**

## **User Manual**

by EDA Technology Co., Ltd

built: 2026-08-28

# 1 Hardware Manual

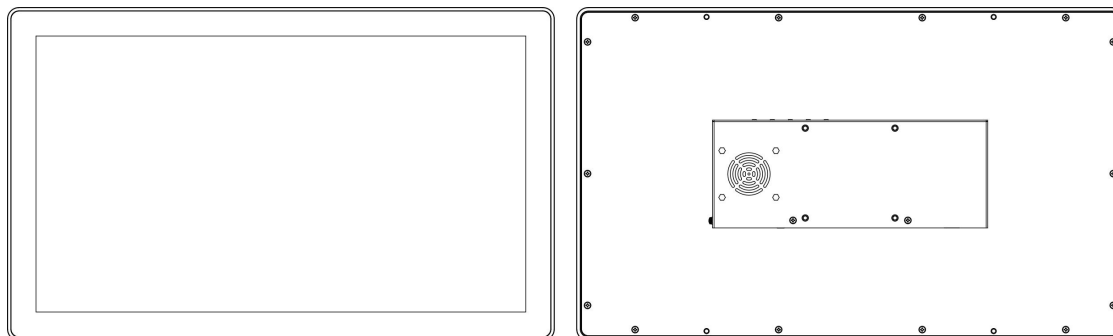
This chapter introduces the product overview, packing list, appearance, buttons, indicators, and interfaces.

## 1.1 Overview

The ED-HMI3010-185C is a 18.5-inch industrial HMI based on Raspberry Pi 5, featuring a screen resolution of 1920x1080 with high brightness up to 290 cd/m<sup>2</sup> and equipped with a multi-point capacitive touchscreen. Depending on the application scenarios and user needs, computer systems with different configurations can be selected:

- 2GB DDR + 32GB SD card
- 4GB DDR + 32GB SD card
- 8GB DDR + 64GB SD card
- 16GB DDR + 64GB SD card

The ED-HMI3010-185C provides 2 USB 2.0 ports, 2 USB 3.0 ports, 1 Gigabit Ethernet port, 1 DC Jack power interface, and 1 3.5mm audio interface. It supports network connectivity via Wi-Fi and Ethernet. Backlight brightness and volume can be adjusted through buttons and software. It is primarily used in industrial control applications.



## 1.2 Packing List

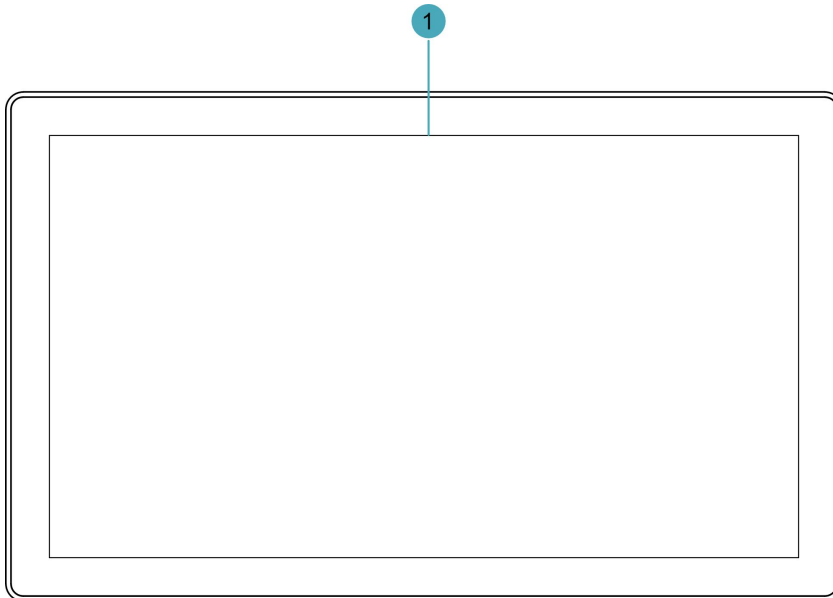
- 1 x ED-HMI3010-185C Unit
- 1 x Mounting Kit (including 4 x buckles, 4xM4\*10 screws and 4xM4\*16 screws)

## 1.3 Appearance

This section introduces the functions and definitions of the interfaces on each panel.

### 1.3.1 Front Panel

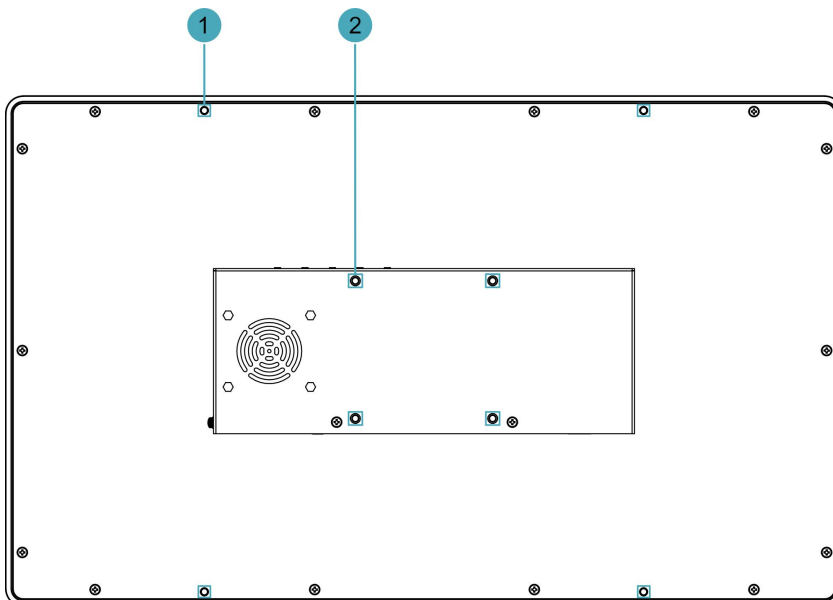
Introducing the types and definitions of the interfaces on the front panel.



| NO. | Description                                                                                                 |
|-----|-------------------------------------------------------------------------------------------------------------|
| 1   | 1 x LCD screen, 18.5-inch touch screen with a resolution of 1920x1080, multi-touch capacitive touch screen. |

### 1.3.2 Rear Panel

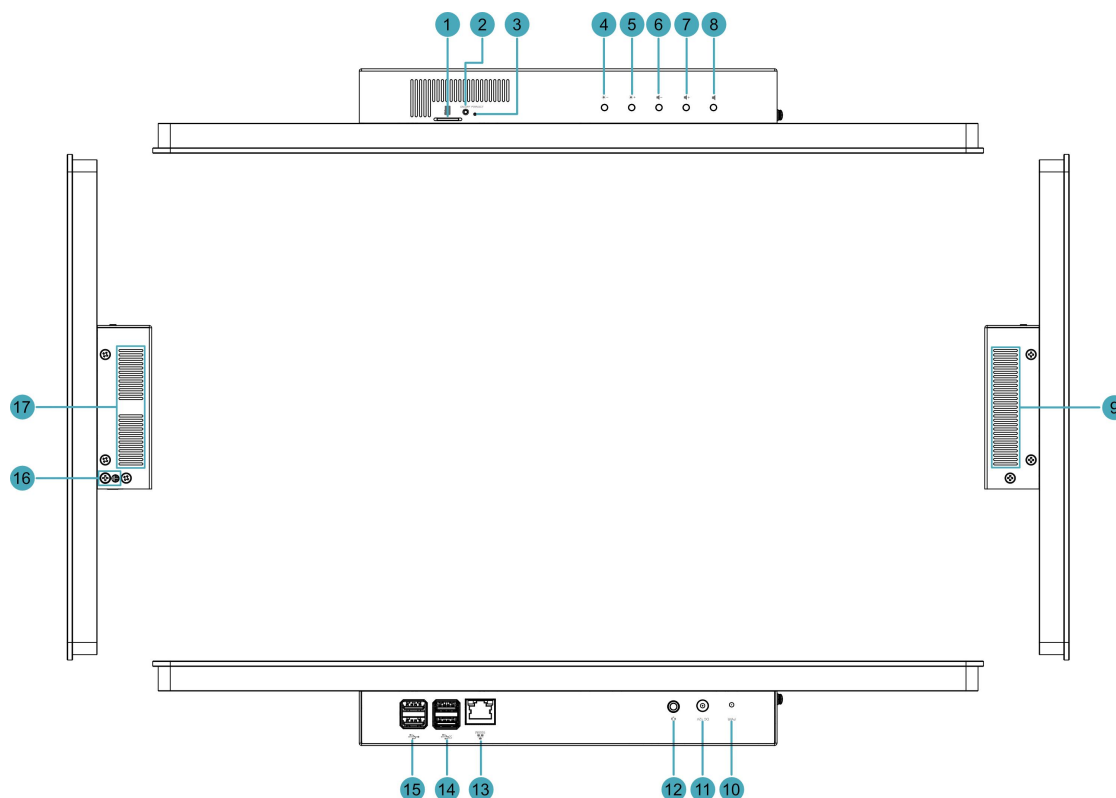
Introducing the types and definitions of the interfaces on the rear panel.



| NO. | Description                                                                                              |
|-----|----------------------------------------------------------------------------------------------------------|
| 1   | 4 x installation holes of snap, which are used to fix the snaps to the device for Embedded installation. |
| 2   | 4 x VESA mounting holes, reserved for VESA bracket installation.                                         |

### 1.3.3 Side Panel

Introducing the types and definitions of the interfaces on the side panel.



| NO. | Description                                                                                               |
|-----|-----------------------------------------------------------------------------------------------------------|
| 1   | 1 x Micro SD card slot, pre-installed with a Micro SD card by default, used for system booting.           |
| 2   | 1 x ON/OFF switch button, used for powering on and off the device.                                        |
| 3   | 1 x PWR/ACT indicator, a dual-color (red/green) LED for monitoring power status and data access activity. |
| 4   | 1 x "Brightness -" button, press the button to decrease the backlight brightness of the LCD screen.       |
| 5   | 1 x "Brightness +" button, press the button to increase the backlight brightness of the LCD screen.       |
| 6   | 1 x "Volume -" button, press the button to decrease the output volume.                                    |
| 7   | 1 x "Volume +" button, press the button to increase the output volume.                                    |
| 8   | 1 x "Mute" button, press the button to mute the output audio.                                             |
| 9   | Heat dissipation holes, which help improve cooling performance.                                           |
| 10  | 1 x red power indicator, using to view the device's power-on and power-off status.                        |
| 11  | 1 x DC input, DC Jack connector (5.5x2.5mm), which supports 12V DC input.                                 |
| 12  | 1 x 3.5mm stereo audio output jack, supports headphone connectivity.                                      |
| 13  | 1 x Ethernet interface (10/100/1000M auto-negotiation), RJ45 connector, for Ethernet connectivity.        |
| 14  | 2 x USB 3.0 ports, Type-A connectors, each supporting data transfer rates up to 5Gbps.                    |
| 15  | 2 x USB 2.0 ports, Type-A connectors, each supporting data transfer rates up to 480Mbps.                  |
| 16  | 1 x Ground Terminal, connects to the earth ground of the external power supply.                           |

| NO. | Description                                                     |
|-----|-----------------------------------------------------------------|
| 17  | Heat dissipation holes, which help improve cooling performance. |

## 1.4 Button

The ED-HMI3010-185C device features 5 black buttons and 1 recessed button, comprising:

- 2 x Brightness adjustment buttons
- 3 x Volume adjustment buttons
- 1 x Power ON/OFF switch button

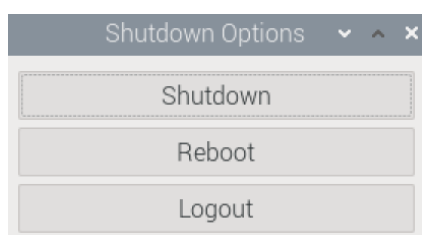
Silkscreen labels printed on the housing denote these functions as: ☀+, ☀-, 🔊+, 🔊-, 🔊 and "ON/OFF".

### Brightness and Volume Adjustment Buttons

| Button | Description                                                              |
|--------|--------------------------------------------------------------------------|
| ☀+     | Press the button to increase the backlight brightness of the LCD screen. |
| ☀-     | Press the button to decrease the backlight brightness of the LCD screen. |
| 🔊+     | Press the button to increase the output volume.                          |
| 🔊-     | Press the button to decrease the output volume.                          |
| 🔊      | Press the button to mute the output audio.                               |

### ON/OFF Switch Button

If you run Raspberry Pi Desktop, you can initiate a clean shutdown by briefly pressing the power button. A menu will appear asking whether you want to shutdown, reboot, or logout:



#### TIP:

If you run Raspberry Pi Desktop, you can press the power button twice in quick succession to shut down.

## 1.5 Indicator

Describe the various states and meanings of the indicators included in the ED-HMI3010-185C device.

| Indicator                         | Status | Description                                                                       |
|-----------------------------------|--------|-----------------------------------------------------------------------------------|
| PWR                               | On     | The device has been powered on.                                                   |
|                                   | Blink  | Power supply of the device is abnormal, please stop the power supply immediately. |
|                                   | Off    | The device is not powered on.                                                     |
| PWR/ACT                           | On     | The device has been powered on.                                                   |
|                                   | Blink  | The system started successfully and is reading and writing data.                  |
|                                   | Off    | The device is not powered on.                                                     |
| Yellow indicator of Ethernet port | On     | The Ethernet connection is in the normal state.                                   |
|                                   | Blink  | The Ethernet connection is abnormal.                                              |
|                                   | Off    | The Ethernet connection is not set up.                                            |
| Green indicator of Ethernet port  | On     | The Ethernet connection is in the normal state.                                   |
|                                   | Blink  | Data is being transmitted over the Ethernet port.                                 |
|                                   | Off    | The Ethernet connection is not set up.                                            |

## 1.6 Interface

Introducing the definitions and functions of each interface in the ED-HMI3010-185C.

### 1.6.1 Power Interface

ED-HMI3010-185C device includes 1 power input port with a DC Jack connector (5.5x2.5mm), labeled "DC 12V" on the housing. It supports 12V DC input.

#### TIP

A 12V 4A power adapter is recommended.

#### WARNING

- When using the device, do not hot-plug or unplug the DC Jack connector during operation. To power off or restart the device, always control it by plugging or unplugging the AC power supply at the adapter end.
- Recommended power-up sequence:
  1. Plug the DC connector of the power adapter into the device's DC Jack receptacle.
  2. Plug the 100–240V AC connector into an AC power outlet.
- Recommended power-down sequence (reverse of power-up):
  1. Unplug the 100–240V AC connector from the AC power outlet.

## 2. Unplug the DC connector from the device's DC Jack receptacle.

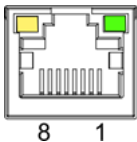
### 1.6.2 Audio Interface

ED-HMI3010-185C device includes 1 audio interface (3.5mm 4-pole headphone jack), labeled "🎧" on the housing, supporting stereo audio output.

### 1.6.3 1000M Ethernet Interface

ED-HMI3010-185C device includes one adaptive 10/100/1000M Ethernet port, and the silkscreen

is "1000M". The connector is RJ45, which is used to access to network. It is recommended to use the network cable of Cat6 and above. The pins definitions are as follows:

|  | Pin ID | Pin Name |
|------------------------------------------------------------------------------------|--------|----------|
|                                                                                    | 1      | TX1+     |
|                                                                                    | 2      | TX1-     |
|                                                                                    | 3      | TX2+     |
|                                                                                    | 4      | TX2-     |
|                                                                                    | 5      | TX3+     |
|                                                                                    | 6      | TX3-     |
|                                                                                    | 7      | TX4+     |
|                                                                                    | 8      | TX4-     |

### 1.6.4 USB 2.0 Interface

The ED-HMI3010-185C device features 2 × USB 2.0 ports with standard Type-A connectors.

These ports are silkscreen-labeled "🔌" and support connection to standard USB 2.0 peripherals with a maximum data transfer rate of 480Mbps.

### 1.6.5 USB 3.0 Interface

The ED-HMI3010-185C device features 2 × USB 3.0 ports with standard Type-A connectors.

These ports are silkscreen-labeled "SS🔌" and support connection to standard USB 3.0 peripherals with a maximum data transfer rate of 5Gbps.

## 2 Installing/removing Components (optional)

This chapter introduces how to install/remove components.

### 2.1 Pull Out Micro SD Card

If you need to remove the SD card while using the product, you can refer to the following instructions.

#### WARNING

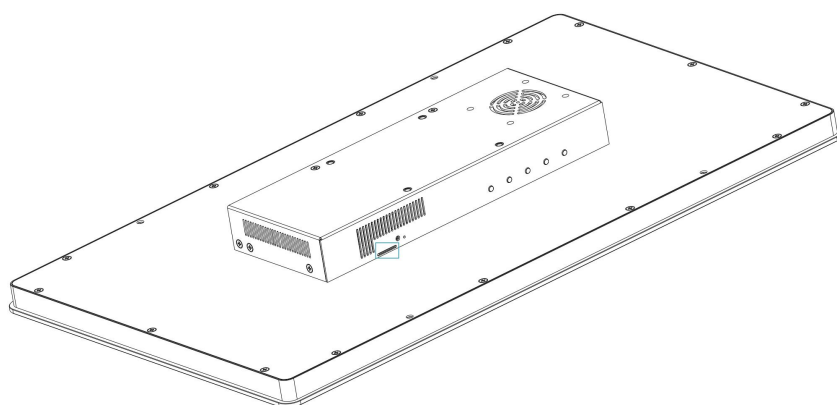
Please turn off the power before inserting or removing the Micro SD card.

Preparation:

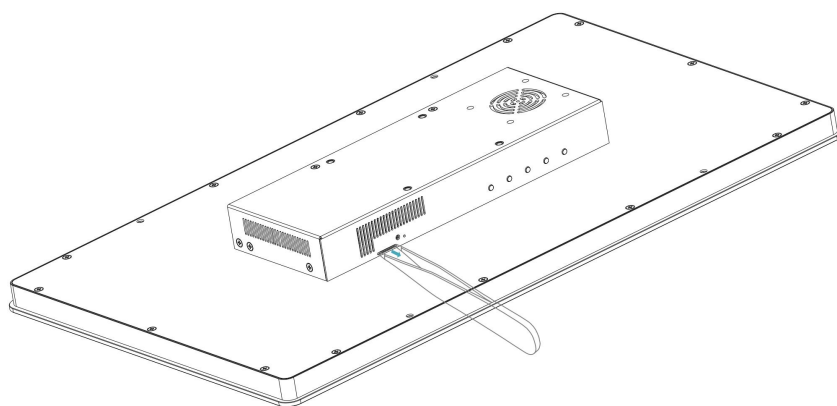
- A pair of tweezers is ready.
- The device has been disconnected from power.

Steps:

1. Identify the location of the Micro SD card as indicated in the figure below.



2. Using tweezers, grip the SD card and pull it outward along the arrow direction.



## 2.2 Insert Micro SD Card

If you need to insert the SD card while using the product, you can refer to the following instructions.

### WARNING

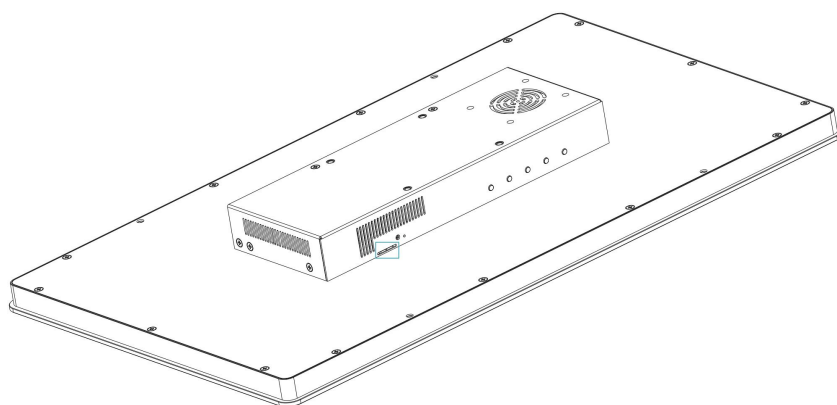
Please turn off the power before inserting or removing the Micro SD card.

Preparation:

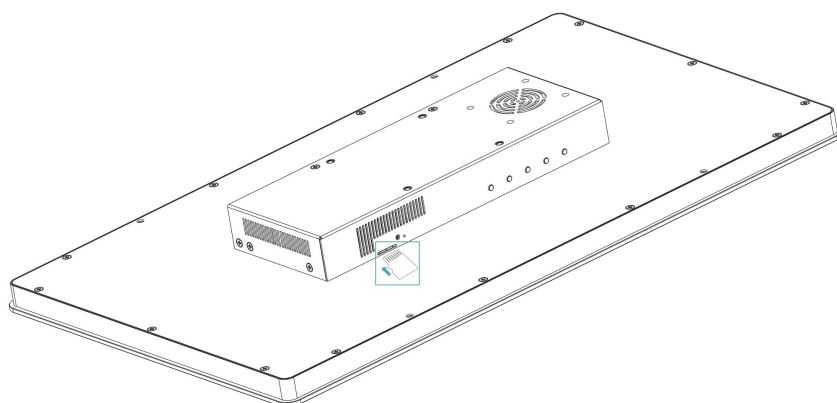
- Micro SD card is ready.
- A pair of tweezers is ready.
- The device has been disconnected from power.

Steps:

1. Identify the location of the Micro SD card slot as indicated in the figure below.



2. Position the SD card with contact pads facing upward, grip it with tweezers, and insert into the corresponding slot along the arrow direction until securely locked in place.



### 3 Installing the device

ED-HMI3010-185C device supports front embedded installation. The standard packaging includes the embedded installation Mounting kit (ED-ACCHMI-Front).

Preparation:

- The ED-ACCHMI-Front Mounting kit has been acquired (includes 4 × M4\*10 screws, 4 × M4\*16 screws, and 4 snaps).
- A cross screwdriver has been prepared.

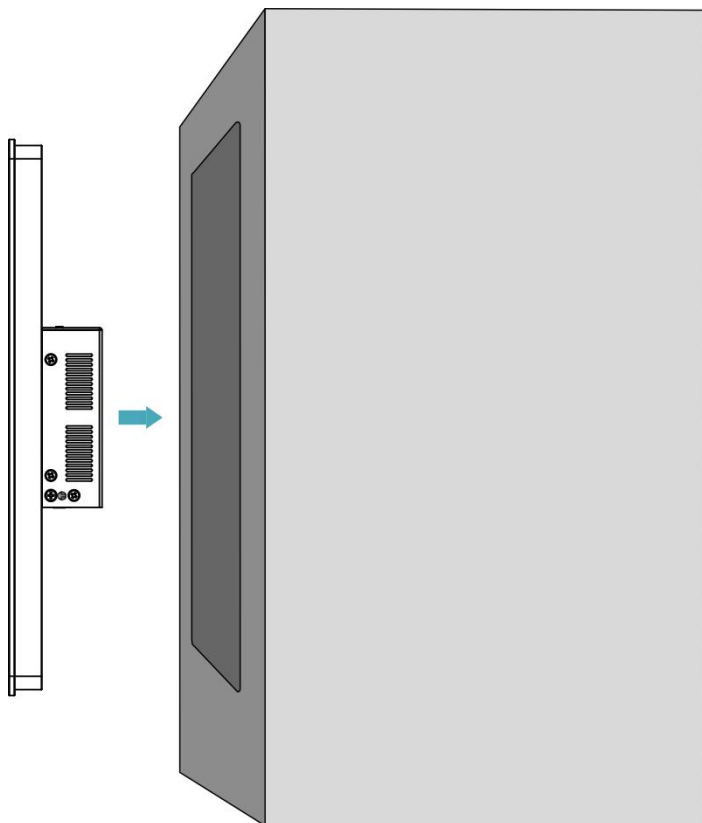
Steps:

1. Determine the cutout dimensions on the cabinet based on the ED-HMI3010-185C's size, as shown in the figure below.

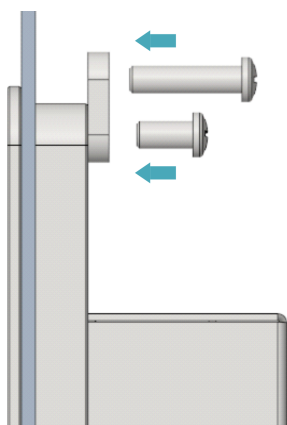
Unit: mm



2. Drill holes on the cabinet according to the aperture size defined in Step 1.
3. Embed the ED-HMI3010-185C into the cabinet from the exterior side.

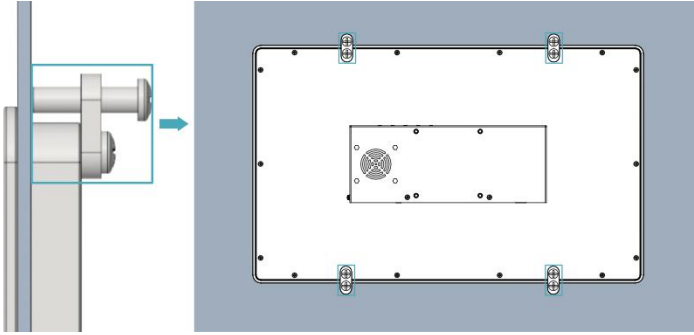


4. Align the screw holes (non-threaded) of the snaps with the snap mounting holes on the device side.



5. Secure the snaps to the device.

- Use 4 × M4\*10 screws to fasten the snaps to the device by threading them through the non-threaded holes and tightening them clockwise.
- Then, use 4 × M4\*16 screws to secure the snaps to the cabinet: Insert them through the threaded holes of the snaps, press against the interior side of the cabinet, and thread them clockwise until fully tightened.



## 4 Booting The Device

This chapter details the specific procedures for connecting cables and powering on the device.

### 4.1 Connecting Cables

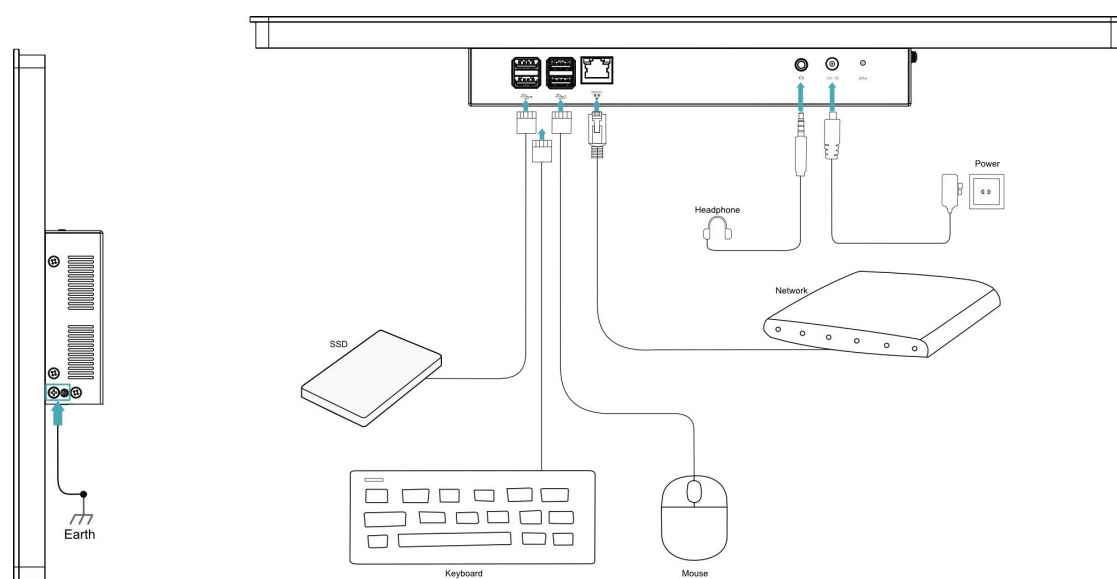
This section describes the procedures for connecting cables to the device.

Preparation:

- Available functional accessories: keyboard, mouse and power adapter.
- Available functional network connection.
- A verified functional Ethernet cable has been obtained.

Schematic diagram of connecting cables:

Please refer to [1.6 Interface](#) for the pin definition of each interface and the specific method of wiring.



### 4.2 Booting The System For The First Time

After ED-HMI3010-185C is connected to the power supply, the system will start.

#### WARNING

- When using the device, do not hot-plug or unplug the DC Jack connector during operation. To power off or restart the device, always control it by plugging or unplugging the AC power supply at the adapter end.
- Recommended power-up sequence:
  1. Plug the DC connector of the power adapter into the device's DC Jack receptacle.
  2. Plug the 100–240V AC connector into an AC power outlet.
- Recommended power-down sequence (reverse of power-up):
  1. Unplug the 100–240V AC connector from the AC power outlet.

2. Unplug the DC connector from the device's DC Jack receptacle.

- The red PWR indicator is on, indicating that the device has been powered normally.
- The PWR/ACT indicator is blinking, indicating that the system is started normally, and then the logo will appear in the screen.

**TIP**

Default username is `pi` , Default password is `raspberrypi` .

### 4.2.1 Raspberry Pi OS (Desktop)

If the device is factory-installed with the Desktop edition operating system, it will directly load the desktop environment upon completing the boot process, as shown in the figure below.



### 4.2.2 Raspberry Pi OS (Lite)

If the device is factory-installed with the Lite edition operating system, it will automatically log in using the default username `pi` upon completing the boot process, with the default password being `raspberrypi`. The figure below indicates successful system initialization.

[illegible]

# 5 Configuring System

This chapter introduces how to configure system.

## 5.1 Finding Device IP

In some application scenarios, it is necessary to remotely log in or manage devices, so it is necessary to obtain the device IP.

### 5.1.1 View IP address At The Network Icon Of Desktop

After the device starting normally and the display is connected, you can view the current device IP address at the Network icon.

#### TIP

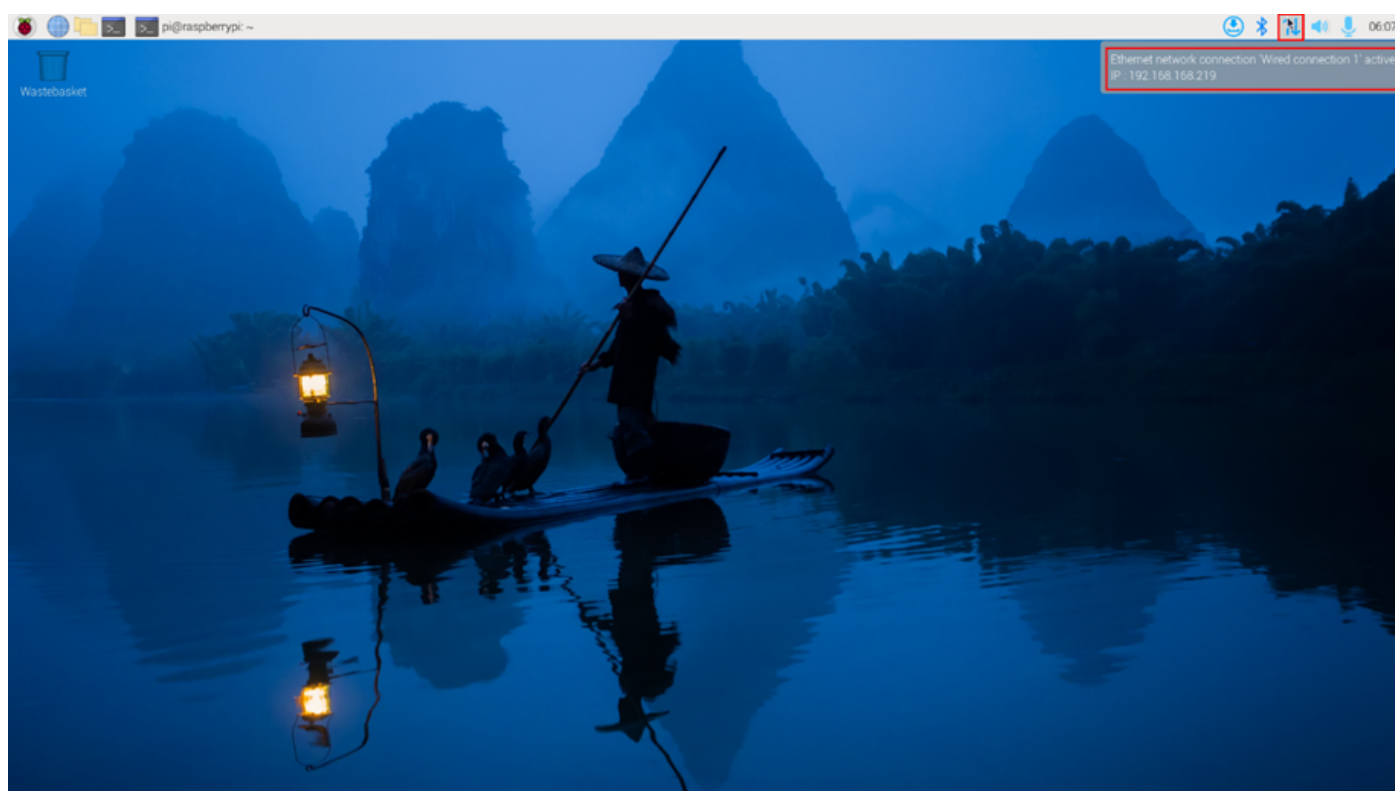
Only supported by Desktop version system.

Preparation:

The device has been connected to the network through the router.

Steps:

Hover over the network icon in the system tray, and a tooltip will appear. This tooltip displays the name of the network you're currently connected to and your IP address.



## 5.1.2 Hostname Command To Query

After the device starting normally and the display is connected, you can query the current device IP address by using hostname command.

Preparation:

The device has been connected to the network through the router.

Steps:

Run the following command in the command pane to obtain IP address.

```
hostname -I
```

sh

```
pi@raspberrypi:~ $ hostname -I
192.168.168.219
```

## 5.1.3 Query IP by Using ifconfig Command

After the device is started normally and the display is connected, you can use the `ifconfig` command to view the current device IP.

Preparation:

The device has been connected to the network through the router.

Steps:

Run the following command in the command pane to view the detailed information of each port of the device, where the inet value in the eth1 interface is the device IP, as shown in the following figure.

```
ifconfig
```

sh

```
pi@raspberrypi:~ $ ifconfig
eth0: flags=4096<UP,BROADCAST,MULTICAST> mtu 1500
    ether d8:3a:dd:04:7e:78 txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

eth1: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.168.206 netmask 255.255.255.0 broadcast 192.168.168.255
    inet6 fe80::2198:b903:934:c9e8 prefixlen 64 scopeid 0x20<link>
    ether 00:e0:99:9a:b4:61 txqueuelen 1000 (Ethernet)
    RX packets 110058 bytes 9062950 (8.6 MiB)
    RX errors 130 dropped 0 overruns 0 frame 0
    TX packets 18703 bytes 15467955 (14.7 MiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

### WARNING

If the two Ethernet ports of device are all connected to Ethernet, the two IP addresses found are all device IP addresses.

## 5.1.4 Query IP by Using Network Manager CLI

After the device is started normally and the display is connected, you can use the built-in Network Manager CLI (nmcli) to view details about your network.

Preparation:

The device has been connected to the network through the router.

Steps:

Run the following command in the command pane to view the detailed network information.

```
nmcli device show
```

sh

```
pi@raspberrypi:~$ nmcli device show
GENERAL.DEVICE:      eth0
GENERAL.TYPE:        ethernet
GENERAL.HWADDR:      08:3A:DD:BF:BE:C5
GENERAL.MTU:         1500
GENERAL.STATE:        100 (connected)
GENERAL.CONNECTION:   Wired connection 1
GENERAL.CON-PATH:     /org/freedesktop/NetworkManager/ActiveConnection/3
WIRED-PROPERTIES.CARRIER: on
IP4.ADDRESS[1]:       192.168.168.219/24
IP4.GATEWAY:          192.168.168.1
IP4.ROUTE[1]:         dst = 192.168.168.0/24, nh = 0.0.0.0, mt = 100
IP4.ROUTE[2]:         dst = 0.0.0.0/0, nh = 192.168.168.1, mt = 100
IP4.DNS[1]:           192.168.168.1
IP6.ADDRESS[1]:       fe80::382a:b964:5832:e59a/64
IP6.GATEWAY:          --
IP6.ROUTE[1]:         dst = fe80::/64, nh = ::, mt = 1024
```

## 5.1.5 Login Router To Query IP

When the device starts normally, you can log in to the router to check the current device IP.

Preparation:

- The device has been connected to the network through the router.
- The IP and network password of the router in the network have been obtained, and the IP address is 192.168.X.X.

Steps:

1. Open a browser, Enter the router IP of the network where the device is located in the address bar: 192.168.x.x, and press Enter to enter the router login interface.
2. According to the interface prompts, enter the network password and enter the router management interface.
3. Find the IP address of device in the terminal device of the management interface.

## 5.1.6 Scan For Using NMAP Tool

When the device starts normally, you can use nmap tool to scan the IP under the current network to obtain the IP information of the device. Nmap supports Linux, macOS, Windows and other platforms.

Preparation:

- The device has been connected to the network through the router.

- The IP segment and mask of the router in the network have been obtained, for example, 192.168.X.X/24, where 24 is the subnet mask.

Steps:

For example, using nmap to scan the network segments from 192.168.3.0 to 255, you can use the following steps:

1. Open the nmap tool and scan the hosts in the 192.168.X.X/24 network segment.

#### WARNING

The nmap tool operates differently in different operating systems, so please follow the actual interface or command prompts.

2. According to the scanned results, get the device IP.

## 5.2 Remote Login

There are many remote login methods, and users can choose according to their actual needs. This chapter only introduces SSH and VNC.

### 5.2.1 Connect To The Device Via SSH

After the device starts normally, you can choose to connect to the device remotely through SSH to configure or debug it. The tools for remote login are selected by users themselves, and the following is an example of logging in through **MobaXterm**.

Preparation:

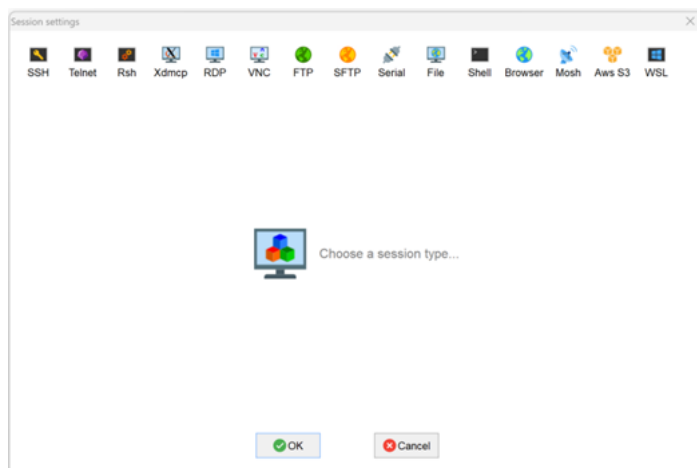
- The **MobaXterm** tool has been installed on the PC.
- The device has been connected to the network through the router.
- IP address of the device has been get.

Steps:

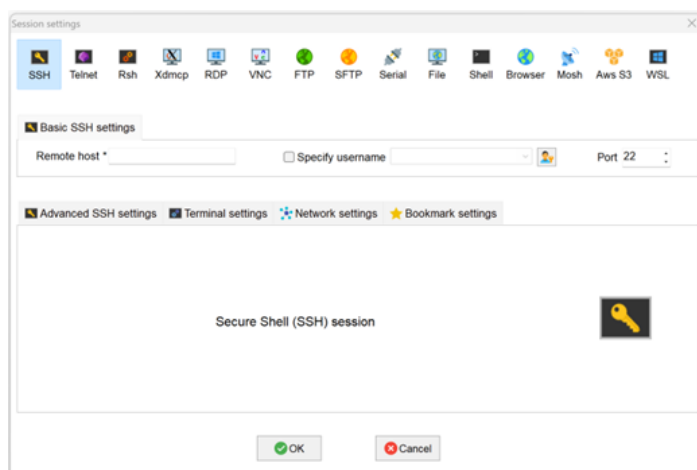
1.



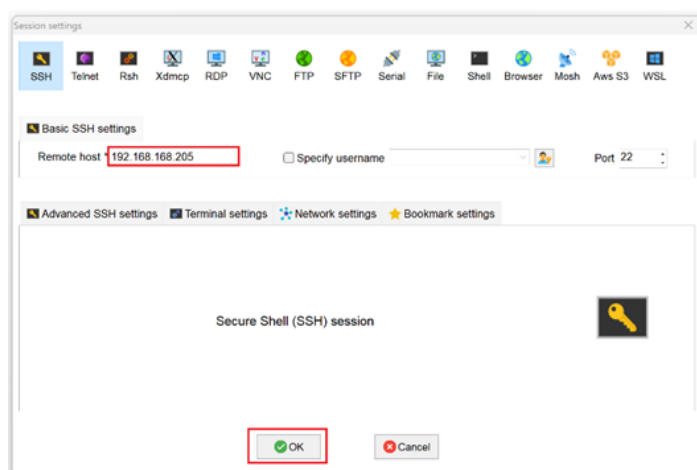
Open **MobaXterm**, click **Session**, and open the window for creating connection, as shown in the figure below.



2.  Click **SSH** in the upper left corner to open the SSH connection interface.



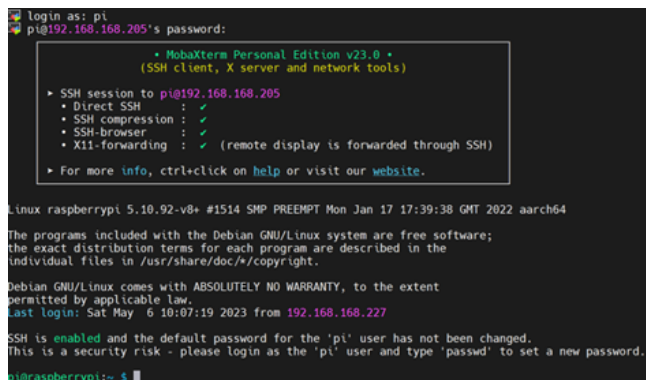
3. After entering the IP address of the obtained device, click "OK".



4. Click "Accept" in the pop-up prompt box to enter the system login interface.  
 5. Enter the username and password according to the prompt, and enter the system after logging in.

## TIP

Default username is `pi` , Default password is `raspberrypi` .



```
login as: pi
pi@192.168.168.205's password:
MobaXterm Personal Edition v23.0
(SSH client, X server and network tools)

SSH session to pi@192.168.168.205
  Direct SSH      : ✓
  SSH compression : ✓
  SSH-browser     : ✓
  X11-forwarding  : ✓ (remote display is forwarded through SSH)
  For more info, ctrl+click on help or visit our website.

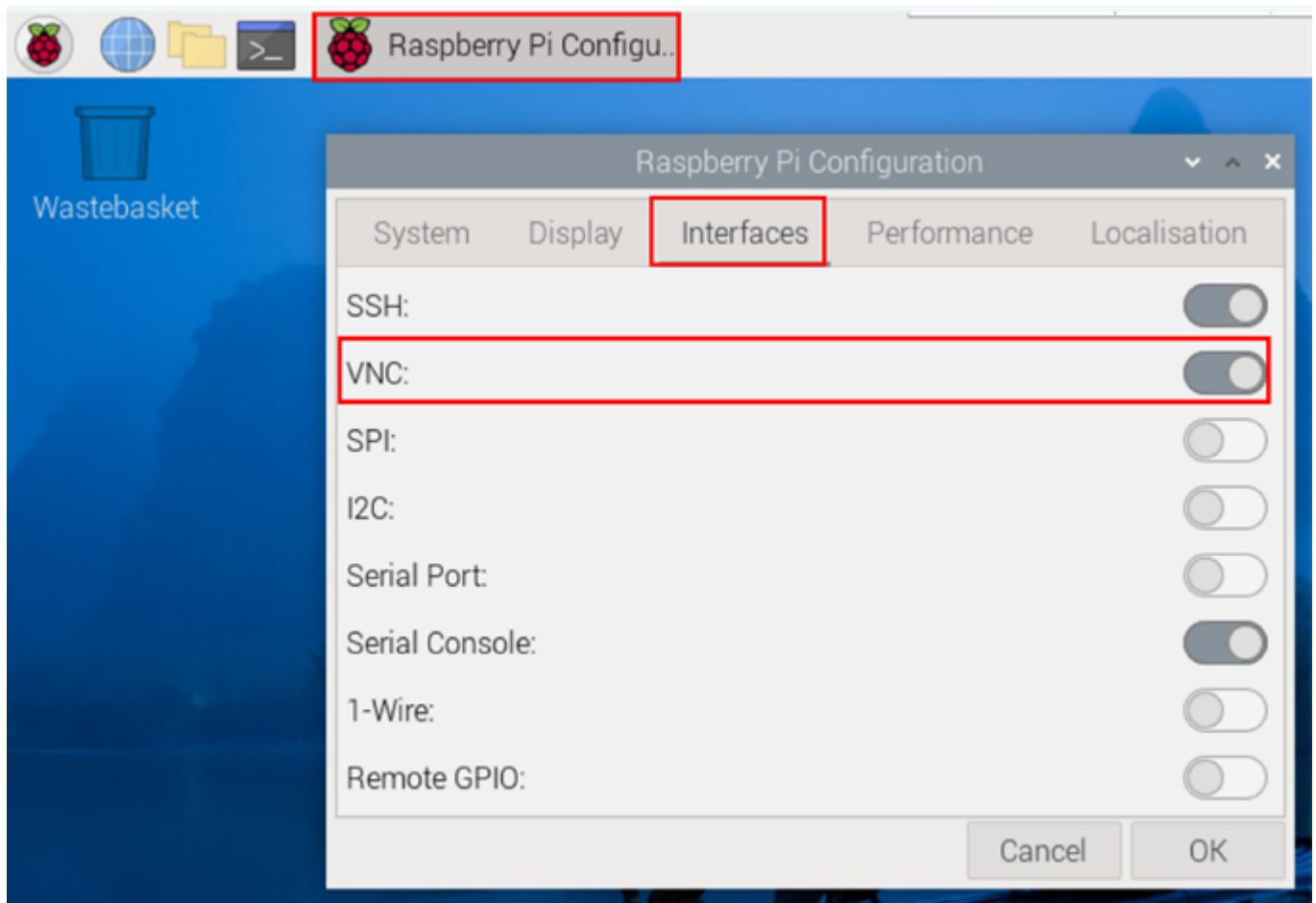
Linux raspberrypi 5.10.92-v8+ #1514 SMP PREEMPT Mon Jan 17 17:39:38 GMT 2022 aarch64
The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Sat May 6 10:07:19 2023 from 192.168.168.227
SSH is enabled and the default password for the 'pi' user has not been changed.
This is a security risk - please login as the 'pi' user and type 'passwd' to set a new password.
pi@raspberrypi:~ $
```

## 5.2.2 Connect To The Device Desktop Through VNC

After the device starts normally, you can choose to connect to the device remotely through VNC to configure or debug it.

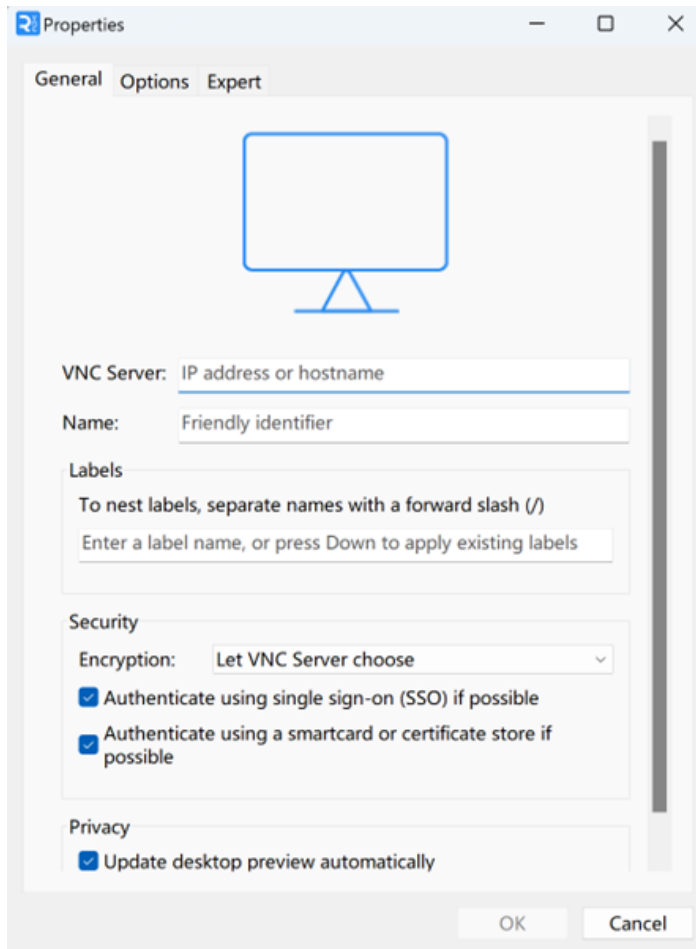
Preparation:

- The `RealVNC Viewer` tool has been installed on PC.
- The device has been connected to the network through the router.
- IP address of the device has been get.
- The VNC function in the system has been turned on, as shown in the following figure.

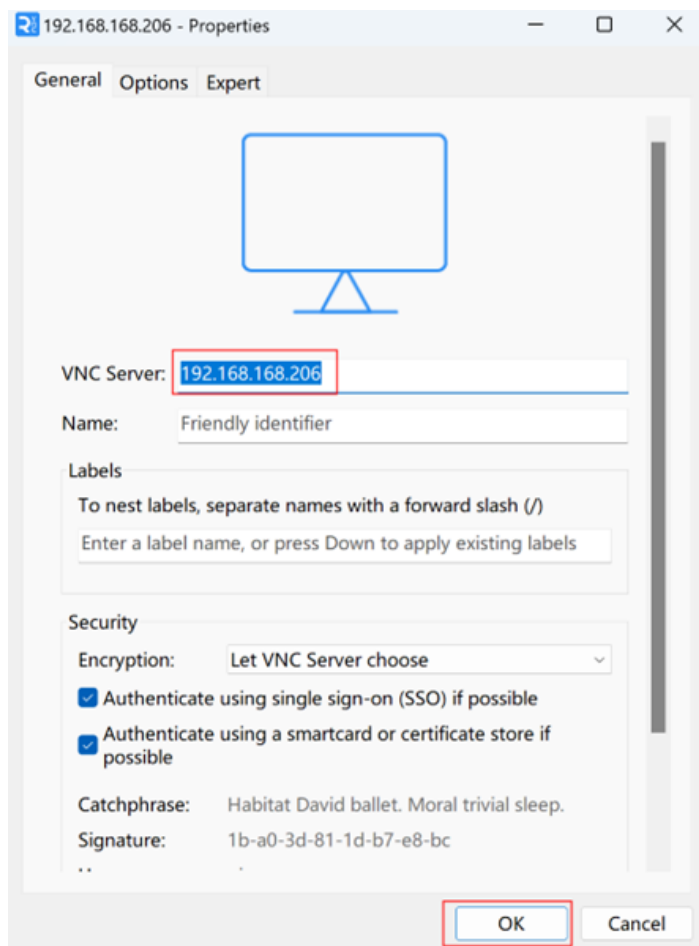


Steps:

1. Open **RealVNC Viewer** and select "New connection..." in the File in the menu bar to open the window for creating a connection, as shown in the following figure.



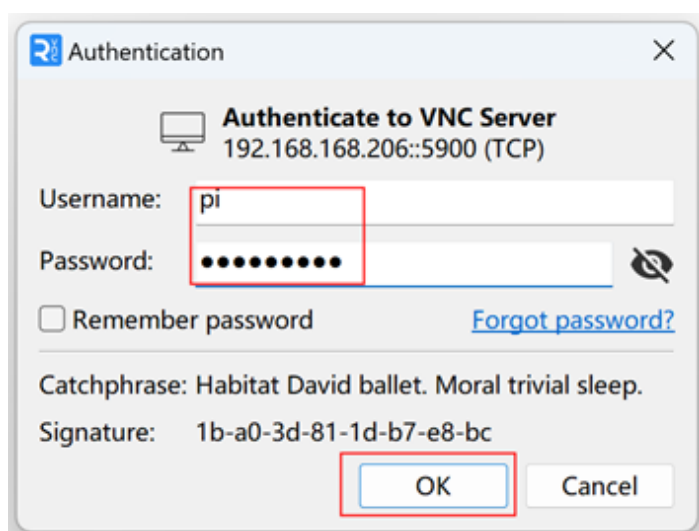
2. After entering the IP address of device, click "OK".



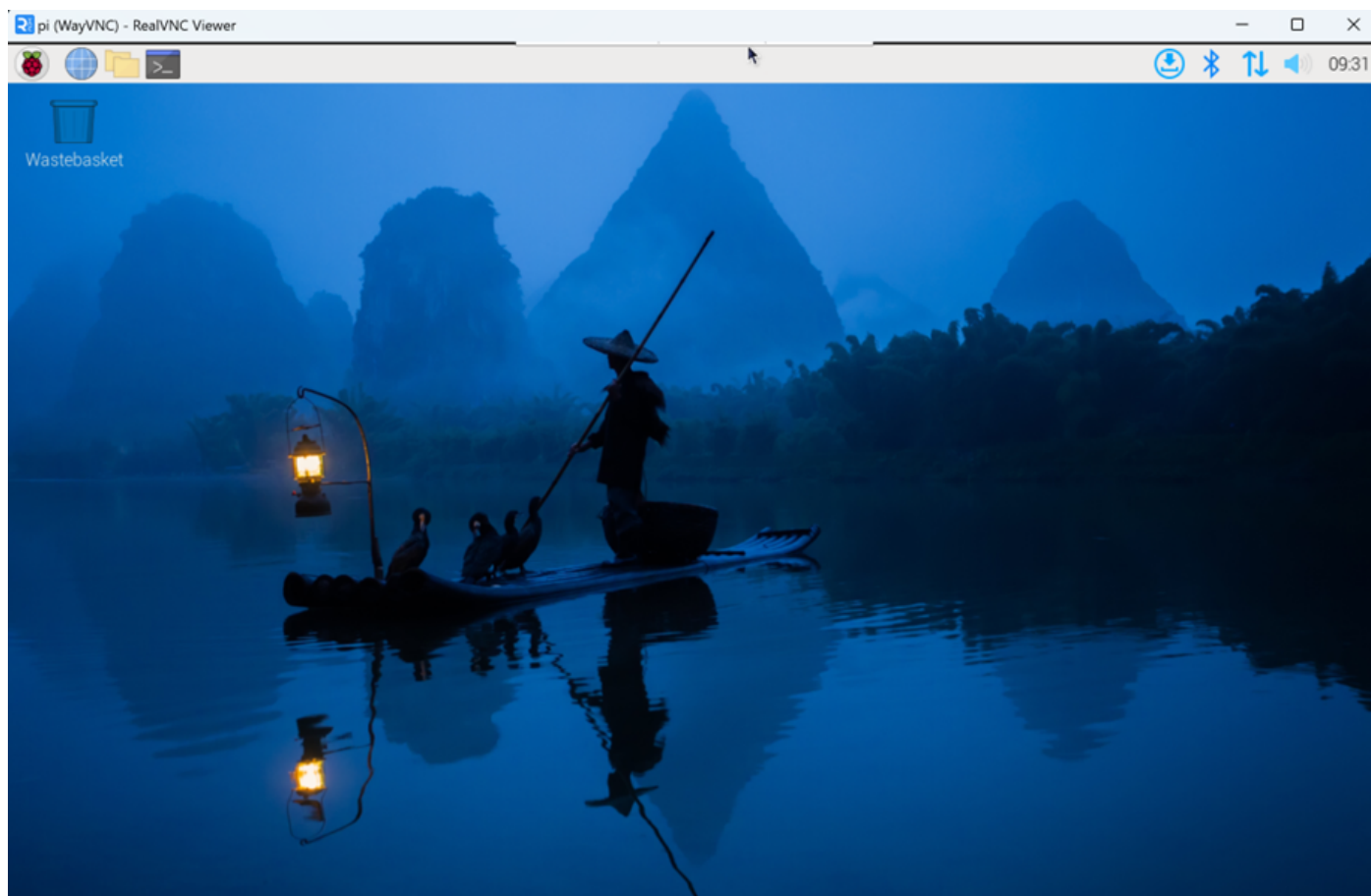
3. Enter the username and password in the Authentication prompt box that pops up.

#### TIP

Default username is `pi` , Default password is `raspberrypi` .



4. Select "OK" to log in and connect to the remote desktop.



## 5.3 Configuring Storage Devices

You can connect your external SSD or USB disk to the corresponding port on the device and mount the file system to access the data stored on it. When the device is turned off, it is necessary to unmount the storage device so that it can be safely pulled out.

The connectable storage devices of device include USB storage devices and SSD. This chapter introduces how to configure the mounting and unmounting of storage devices.

### 5.3.1 Mounting a Storage Device

If the Lite version of the operating system is used (the Desktop version of the system supports automatic mounting), after the storage device is connected to the corresponding port on the device, it is necessary to mount the storage device in a specific folder location through configuration, usually in the `/mnt` folder, such as `/mnt/mydisk`.

#### TIP

The `/mnt` folder must be empty.

Preparation:

The storage device is ready to be mounted.

## Steps:

1. Connect the storage device to be mounted to the corresponding port on the device (USB storage device is inserted into USB port).
2. Run the following command to view all disk partitions on the device.

```
sudo lsblk -o UUID,NAME,FSTYPE,SIZE,MOUNTPOINT,LABEL,MODEL
```

sh

After running the command, the information displayed is as follows:

```
pi@raspberrypi:~$ sudo lsblk -o UUID,NAME,FSTYPE,SIZE,MOUNTPOINT,LABEL,MODEL
UUID                                NAME      FSTYPE  SIZE MOUNTPOINT LABEL  MODEL
7C9E-4F13                           sda       vfat    3.8G /media/pi/ADMESY ADMESY Flash_Disk
mmcb1k0                             |~mmcb1k0p1 vfat    256M /boot      bootfs
C336-AC83                           |~mmcb1k0p2 ext4     7G  /          rootfs
eaaa4faa-eab6-400c-950f-dc96ae4e0400 mmcb1k0boot0 4M
mmcb1k0boot1                        4M
```

- UUID, NAME, FSTYPE, SIZE, MOUNTPOINT, LABEL and MODEL are disk parameters that need to be listed.
- The types of MOUNTPOINT are `/` and `/boot`.
- The storage device whose LABEL is `ADMESY` is the inserted USB storage device, and the corresponding disk name is `sda1`.
- FSTYPE indicates the file system type contained.
- If the file system type of the inserted storage device is exFAT, please run the following commands to install the exFAT driver.

```
sudo apt update
sudo apt install exfat-fuse
```

sh

- If the file system type of the inserted storage device is NTFS (only read permission is supported), you can install ntfs-3g driver to realize write permission. Run the following commands to install ntfs-3g drivers.

```
sudo apt update
sudo apt install ntfs-3g
```

sh

3. Run the following command to get the location of the disk partition.

```
sudo blkid
```

sh

After running the command, the following information is displayed, which the disk partition of the connected storage device is displayed as `/dev/sda1`.

```

pi@raspberrypi:~$ sudo blkid
/dev/mmcblk0p1: LABEL_FATBOOT="bootfs" LABEL="bootfs" UUID="c336-AC83" BLOCK_SIZE="512" TYPE="vfat"
PARTUUID="7902e585-01"
/dev/mmcblk0p2: LABEL="rootfs" UUID="eaaa4faa-eab6-400c-950f-dc96ae4e0400" BLOCK_SIZE="4096" TYPE="
ext4" PARTUUID="7902e585-02"
/dev/sda1: LABEL="ADME5Y" UUID="7C9E-4F13" BLOCK_SIZE="512" TYPE="vfat"

```

4. Create a target folder as the mount point of the storage device. Assuming that the mount name is `mydisk` and the directory to be mounted is `/mnt`, the command to be executed is as follows:

```
sudo mkdir /mnt/mydisk
```

sh

5. Mount the storage device at the created mount point, and execute the following command:

```
sudo mount /dev/sda1 /mnt/mydisk
```

sh

6. Verify the success of mounting the storage device by executing the following command.

```
ls /mnt/mydisk
```

sh

- After executing the command, if the displayed information lists all files in the storage device, it means that the mount is successful.
- After executing the command, if the displayed information does not list the contents of related files, it means that the mount is failed.

## 5.3.2 Unmount The Storage Device

When the device is turned off, it is necessary to manually unmount the storage device so that it can be pulled out safely.

### WARNING

Both Lite and Desktop versions of the system need to manually unmount the storage device.

Preparation:

The storage device has been successfully mounted.

Steps:

If `/mnt` is the mounted directory and `mydisk` is the name of the mount point, you can execute the following command to complete the unmounting.

```
sudo umount /mnt/mydisk
```

sh

- After executing the command, if no error message is displayed, it means that the unmounting has been completed and the storage device can be completely pulled out.
- After executing the command, if an error message is displayed, it means that the unmounting is failed.

### 5.3.3 Set The Storage Device To Mount Automatically

If you are using the Lite version of operating system, you can automatically mount it by modifying the fstab settings.

Preparation:

The storage device to be mounted has been connected to the corresponding port on the device.

Steps:

1. Execute the following command to view all disk partitions on the device and get the file system type of the storage device to be mounted, as "vfat" shown in the figure below.

```
sudo lsblk -o UUID,NAME,FSTYPE,SIZE,MOUNTPOINT,LABEL,MODEL
```

sh

```
pi@raspberrypi:~$ sudo lsblk -o UUID,NAME,FSTYPE,SIZE,MOUNTPOINT,LABEL,MODEL
  UUID NAME FSTYPE SIZE MOUNTPOINT LABEL MODEL
7C9E-4F13 sda vfat 3.8G /media/pi/ADMESY ADMESY Flash_Disk
mmcb1k0 mmcb1k0 7.3G
C336-AC83 |mmcb1k0p1 vfat 256M /boot bootfs
eaaa4faa-eab6-400c-950f-dc96ae4e0400 |mmcb1k0p2 ext4 7G / rootfs
mmcb1k0boot0 4M
mmcb1k0boot1 4M
```

2. Execute the following command to obtain the UUID of the storage device to be mounted, such as "7C9E-4F13" in the figure below.

```
sudo blkid
```

sh

```
pi@raspberrypi:~$ sudo blkid
/dev/mmcb1k0p1: LABEL_FATBOOT="bootfs" LABEL="bootfs" UUID="C336-AC83" BLOCK_SIZE="512" TYPE="vfat"
PARTUUID="7902e585-01"
/dev/mmcb1k0p2: LABEL="rootfs" UUID="eaaa4faa-eab6-400c-950f-dc96ae4e0400" BLOCK_SIZE="4096" TYPE="ext4"
PARTUUID="7902e585-02"
/dev/sda1: LABEL="ADMESY" UUID="7C9E-4F13" BLOCK_SIZE="512" TYPE="vfat"
```

3. Execute the following command to open the fstab file.

```
sudo nano /etc/fstab
```

sh

4. Add the following to the fstab file.

```
UUID=7C9E-4F13 /mnt/mydisk vfat defaults,auto,users,rw,nofail 0 0
```

sh

- The value of UUID is the value found in Step 2 above.
- `/mnt` is the directory to be mounted, and `mydisk` is the name of the mount point.
- Vfat is the file system type queried in step 1.
- If the type of file system is FAT or NTFS, the added content is  
`" UUID = 7C9E-4F13 /mnt/mydisk vfat defaults,auto,users,rw,no fail umask = 000 0 0 "`, which will allow all users to "read/write" access to each file on the storage device.

### WARNING

More information about the `fstab` command can be viewed by executing the `man fstab` command.

5. Use `Ctrl+X` to save the file and exit edit mode.

## 5.4 Configuring Ethernet IP

The IP address is automatically obtained by default. If you need to reconfigure the IP, you can configure it through NetworkManager and `dhcpcd`.

### 5.4.1 Configure IP By Using The NetworkManager Tool

The operating systems of Desktop and Lite have enabled NetworkManager by default, which can be directly configured by using NetworkManager.

#### 5.4.1.1 Raspberry Pi OS (Desktop)

In the Desktop version of the operating system, it is recommended to use the graphical NetworkManager tool to configure IP.

### WARNING

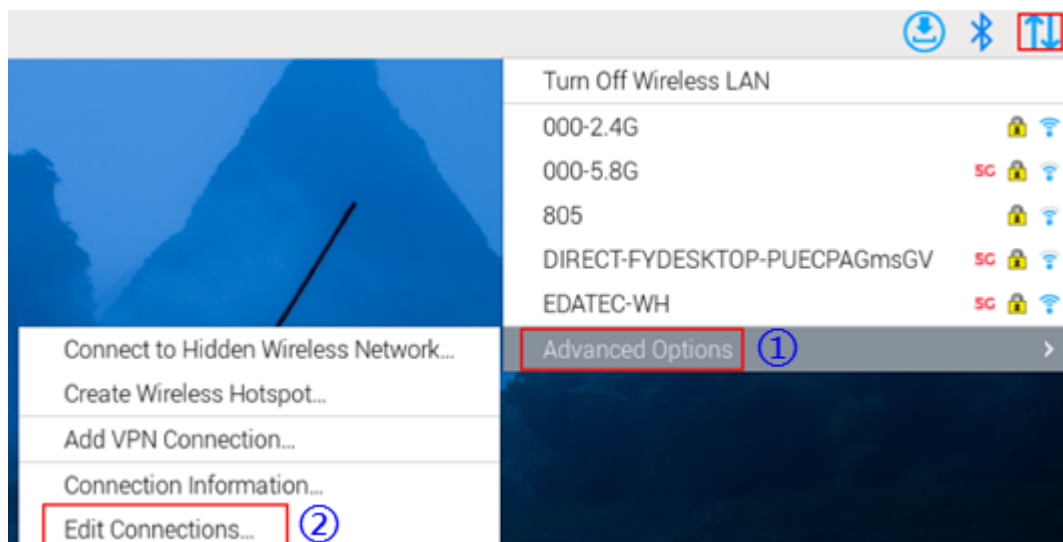
The Desktop version of the operating system has the NetworkManager graphical tool installed by default.

Preparation:

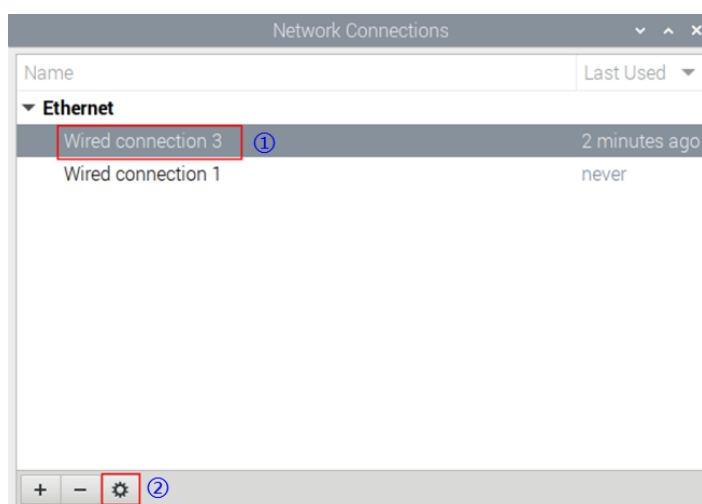
Wi-Fi is enabled.

Steps:

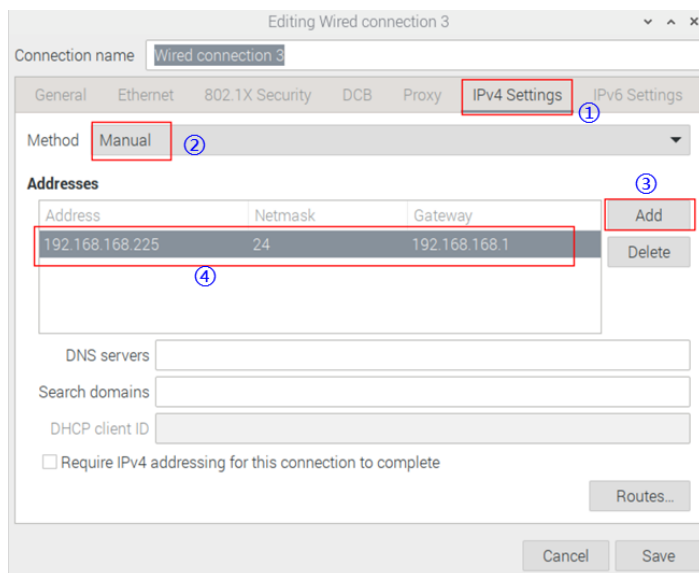
1. Left-click the  icon in the upper right corner of the desktop and select "Advanced Options" → "Edit Connections" in the pop-up menu.



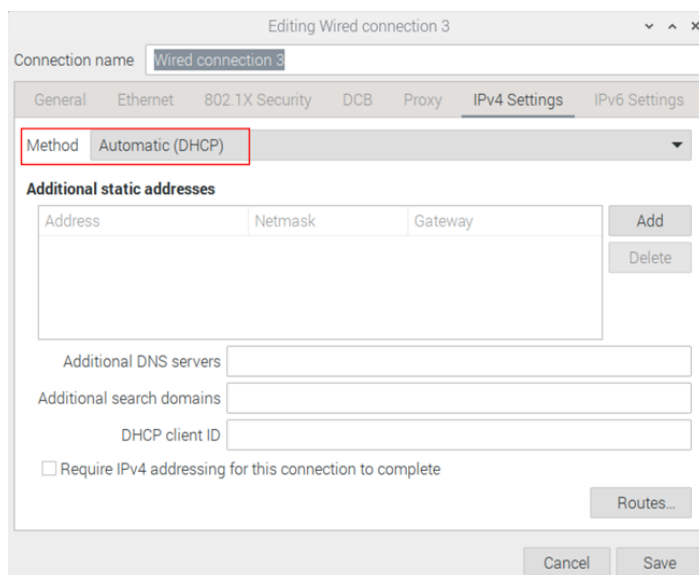
2. In the pop-up "Network Connections" pane, select the connection name to be modified, and then click the Settings button below.



3. In the pop-up "Editing Wired connection" pane, select the "IPv4 Settings" page, and then set the IP address as required.
- If you want to set the IP as a static IP, set the "Method" as "Manual", add an entry in Addresses and enter the corresponding IP address information.



- If you want to set the IP to automatic mode, you only need to set the "Method" as "Automatic(DHCP)".



4. Click "save" to return to "Network Connections" pane and close the page.
5. Execute the `sudo reboot` command to restart the device.

#### 5.4.1.2 Raspberry Pi OS (Lite)

In the Lite version of operating system, it is recommended to use the command to configure IP.

Preparation:

NetworkManager is enabled.

Steps:

- Set a static IP address
1. Get the assigned IP address, subnet mask and gateway address, for example, the IP address is 192.168.1.101/24 and the gateway IP is 192.168.1.1.

- Obtain the connection name to be modified, for example `e167c45f-efed-3f8d-89a5-f2430f92fae8`. In the command pane, run the following command to query the connection name.

```
nmcli c
```

sh

```
pi@raspberrypi:~$ nmcli c
NAME                UUID                                  TYPE      DEVICE
Wired connection 1  e167c45f-efed-3f8d-89a5-f2430f92fae8 ethernet  eth0
EDATEC-WH          0e6ae3ef-d53d-447d-9da7-79f72293c3f3 wifi      wlan0
Wired connection 2  2699e0b9-277b-36d4-b145-8bd29ad924c2 ethernet  --
Wired connection 3  c0d88cab-714c-3dd1-acd4-595787994af4 ethernet  --
```

- Execute the following command to set the IP address to the obtained IP address.

```
sudo nmcli connection modify e167c45f-efed-3f8d-89a5-f2430f92fae8 ipv4.addresses 192.168.1.101
```

sh

- Execute the following command to set the gateway IP to the obtained gateway IP.

```
sudo nmcli connection modify e167c45f-efed-3f8d-89a5-f2430f92fae8 ipv4.gateway 192.168.1.1
```

sh

- Set the IP to automatic mode

- Obtain the connection name to be modified, for example `e167c45f-efed-3f8d-89a5-f2430f92fae8`. In the command pane, run the following command to query the connection name.

```
nmcli c
```

sh

```
pi@raspberrypi:~$ nmcli c
NAME                UUID                                  TYPE      DEVICE
Wired connection 1  e167c45f-efed-3f8d-89a5-f2430f92fae8 ethernet  eth0
EDATEC-WH          0e6ae3ef-d53d-447d-9da7-79f72293c3f3 wifi      wlan0
Wired connection 2  2699e0b9-277b-36d4-b145-8bd29ad924c2 ethernet  --
Wired connection 3  c0d88cab-714c-3dd1-acd4-595787994af4 ethernet  --
```

- Execute the following command to set the way of obtaining IP address to automatic mode.

```
sudo nmcli connection modify e167c45f-efed-3f8d-89a5-f2430f92fae8 ipv4.method auto
```

sh

## 5.4.2 Configure IP By Using The dhcpd Tool

Since NetworkManager is enabled on the Desktop and Lite of operating systems by default. If you need to switch to using the dhcpd tool for configuration, you need to stop and disable the NetworkManager service and enable the dhcpd service before configuration.

Steps:

- Execute the following command to stop the NetworkManager service.

```
sudo systemctl stop NetworkManager
```

sh

2. Execute the following command to disable the NetworkManager service.

```
sudo systemctl disable NetworkManager
```

sh

3. Execute the following command to enable the dhcpd service.

```
sudo systemctl enable dhcpd`
```

sh

4. Execute the following command to restart the device.

```
sudo reboot
```

sh

5. Execute the following command to open the `/etc/dhcpd.conf` file.

```
sudo nano /etc/dhcpd.conf
```

sh

6. Add the following content at the end of the `/etc/dhcpd.conf` file.

```
interface eth0
static ip_address=192.168.168.210/24
static routers=192.168.168.1
static domain_name_servers=192.168.168.1 8.8.8.8 fd51:42f8:caae:d92e::1
```

sh

- `eth0` is the Ethernet port of the IP to be configured;
- `192.168.0.10/24` indicates the IP address and subnet mask to be configured;
- `192.168.0.1` indicates the gateway IP to be configured;
- `8.8.8.8` represents the DNS server address, which should be configured according to the actual needs.
- `fd51:42f8:caae:d92e::1` indicates the IPV6 address, which should be configured according to the actual needs.

```

pi@raspberrypi: ~
File Edit Tabs Help
GNU nano 5.4 /etc/dhcpd.conf *
#static ip6_address=fd51:42f8:caae:d92e::ff/64
#static routers=192.168.0.1
#static domain_name_servers=192.168.0.1 8.8.8.8 fd51:42f8:caae:d92e::1

# It is possible to fall back to a static IP if DHCP fails:
# define static profile
#profile static_eth0
#static ip_address=192.168.1.23/24
#static routers=192.168.1.1
#static domain_name_servers=192.168.1.1

# fallback to static profile on eth0
#interface eth0
#fallback static_eth0

interface eth0
static ip_address=192.168.168.210/24
static routers=192.168.168.1
static domain_name_servers=192.168.1 8.8.8.8 fd51:42f8:caae:d92e::1

```

7. Use **Ctrl+S** to save the file, then enter **Ctrl+X** to exit edit mode.

8. Execute the following command to reboot the device.

```
sudo reboot
```

sh

## 5.5 Configuring Wi-Fi

User can choose the device with Wi-Fi version, which needs to be configured before using Wi-Fi function.

The Wi-Fi feature is enabled by default, with the WLAN country code preset to "CN China". Before connecting to a Wi-Fi network, you need to modify the WLAN country code to match your location's regulatory requirements.

### 5.5.1 Set WLAN Country Code

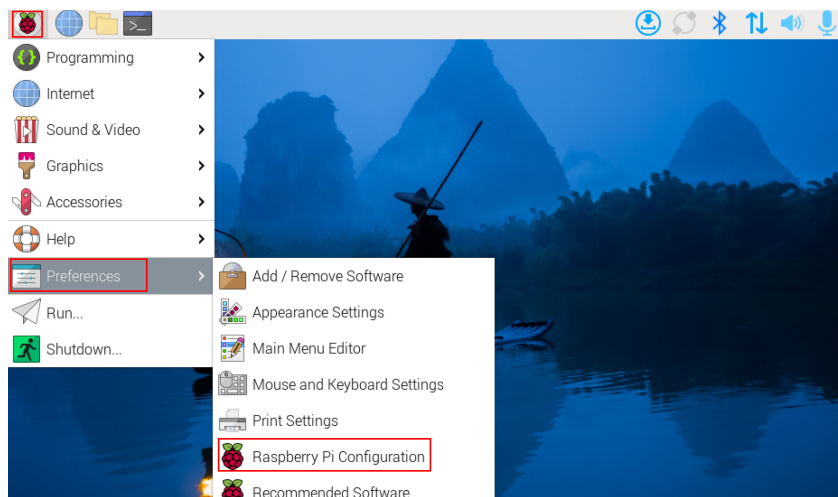
The default WLAN country code is set to "CN China". Please configure an appropriate WLAN country code before connecting to Wi-Fi.

#### 5.5.1.1 Raspberry Pi OS (Desktop)

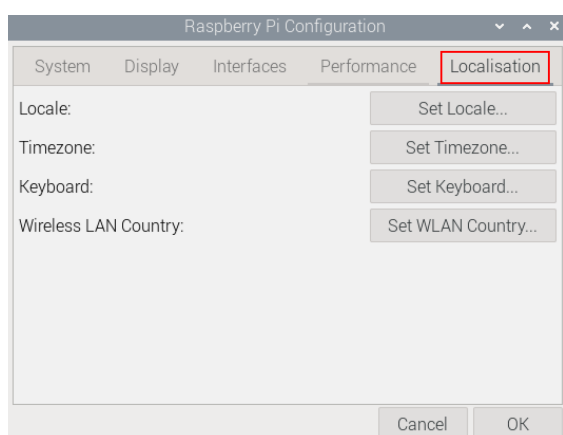
In the Desktop version of the operating system, you can use the desktop menu to set WLAN country code.

Steps:

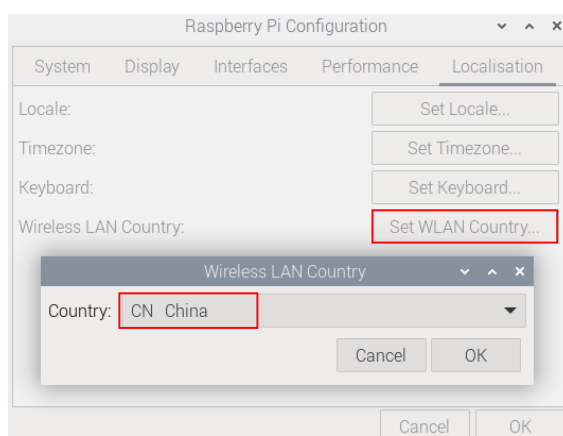
1. Left-click the icon  in the top-left corner of the desktop and select "Preferences"→"Raspberry Pi Configuration" in the menu.



2. In the **Raspberry Pi Configuration** interface, select "Localisation".



3. Click "Set WLAN Country...", Set the value of Country in the pop-up "Wireless LAN Country" pane, and select it to match your location's regulatory requirements.



4. Select "OK" to complete the setting.

### 5.5.1.2 Raspberry Pi OS (Lite)

In the Lite version of the operating system, you can use the command line to set WLAN country code.

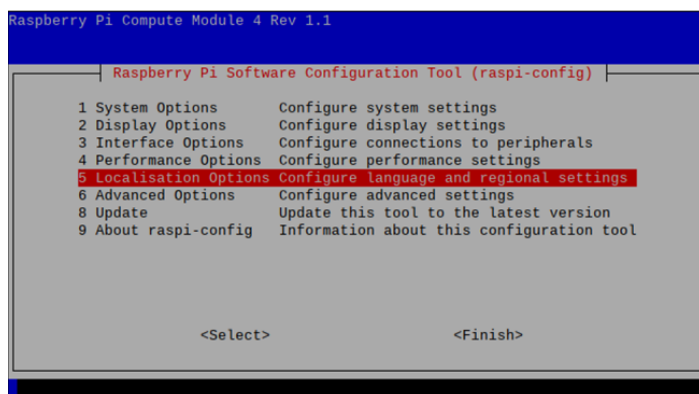
Setps:

1. Open the command terminal pane and execute the following command to open the **Raspberry Pi Software Configuration Tool (raspi-config)** interface.

```
sudo raspi-config
```

sh

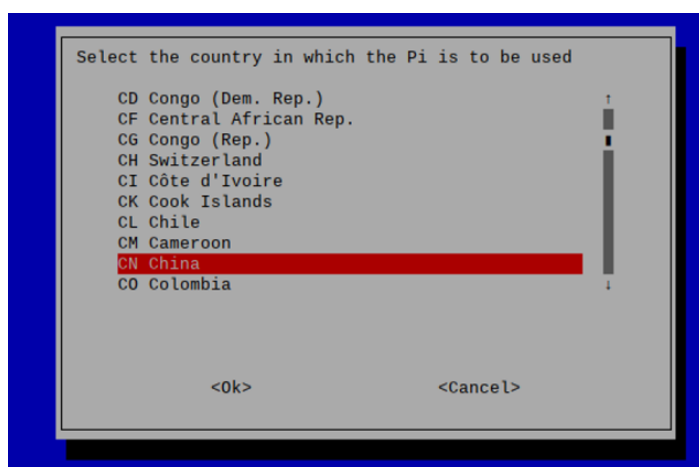
2. Choose "5 Localisation Options" and press "Enter".



3. Select "L4 WLAN Country" and press "Enter".



4. Select a country code to match your location's regulatory requirements and press "Enter".



5. Press "Enter" in **Wireless LAN country set to CN** interface.



6. In the main interface of the pane, select "Finish" and press Enter to complete the setting and return to the command line.

## 5.5.2 Use The NetworkManager Tool To Configure Wi-Fi Connections

The operating systems of Desktop and Lite have enabled NetworkManager by default, which can be directly configured by using NetworkManager.

### 5.5.2.1 Raspberry Pi OS (Desktop)

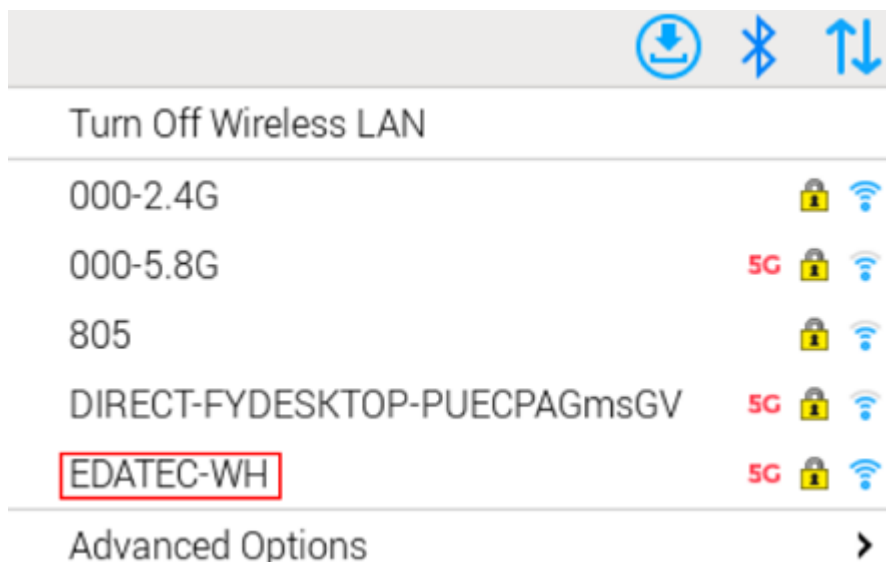
In the Desktop version of the operating system, you can connect to Wi-Fi through the desktop icon.

Preparation:

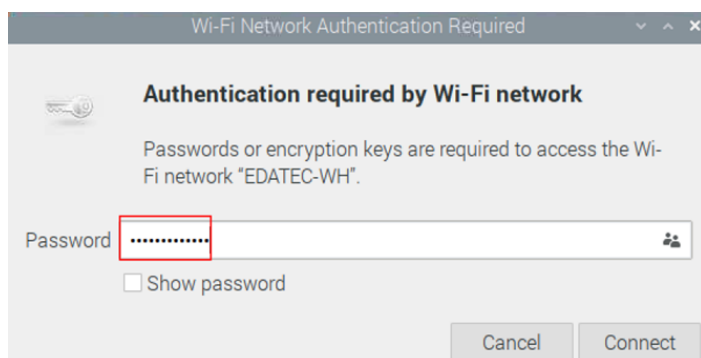
Wi-Fi function is enabled.

Steps:

1. Left-click the  icon in the upper right corner of the desktop, select the Wi-Fi name and click it in the pop-up Wi-Fi list.



2. Input the Wi-Fi Password in the pop-up **Wi-Fi Network Authentication Required** pane.



3. Click "Connect" to connect to the network. After the connection is completed, you can click icon to view Wi-Fi information.

### 5.5.2.2 Raspberry Pi OS (Lite)

In the Lite version of the operating system, it is supported to configure Wi-Fi through the command line.

Preparation:

- Wi-Fi function is enabled.
- The Wi-Fi name and password that can be connected are prepared, for example, the Wi-Fi name is `SSID` and the password is `password`.

Steps:

1. Open the terminal and execute the following command to scan the list of connectable Wi-Fi name.

```
sudo nmcli device wifi
```

sh

```
pi@raspberrypi:~$ sudo nmcli device wifi
```

| IN-USE | BSSID             | SSID                         | MODE  | CHAN | RATE       |
|--------|-------------------|------------------------------|-------|------|------------|
|        | C2:82:98:0A:F9:51 | EDATEC-WH                    | Infra | 44   | 270 Mbit/s |
|        | D2:0F:0C:C8:83:49 | DIRECT-FYDESKTOP-PUECPAGmsGV | Infra | 36   | 270 Mbit/s |
|        | C2:82:98:0A:F9:4D | EDATEC-WH                    | Infra | 6    | 130 Mbit/s |
|        | 98:41:20:8B:16:82 | eda-test                     | Infra | 1    | 405 Mbit/s |
|        | 5A:41:20:AB:16:82 | --                           | Infra | 1    | 405 Mbit/s |
|        | 5A:41:20:9B:16:82 | eda-test-001                 | Infra | 1    | 405 Mbit/s |
|        | 98:41:20:8B:16:84 | eda-test                     | Infra | 157  | 405 Mbit/s |
|        | 5A:41:20:DB:16:82 | --                           | Infra | 157  | 405 Mbit/s |

2. Execute the following command to connect the Wi-Fi.

```
sudo nmcli device wifi connect SSID password password
```

sh

Where `SSID` is the name of the Wi-Fi and the second `password` is the password of the Wi-Fi.

3. Execute the following command to set up automatic Wi-Fi connection.

```
sudo nmcli connection modify SSID connection.autoconnect yes
```

sh

- Where `SSID` is the name of the Wi-Fi.

### 5.5.3 Configure Wi-Fi Connection By Using `raspi-config` Tool

In both Desktop and Lite versions of the operating system, you can connect to Wi-Fi through the `raspi-config` tool.

Preparation:

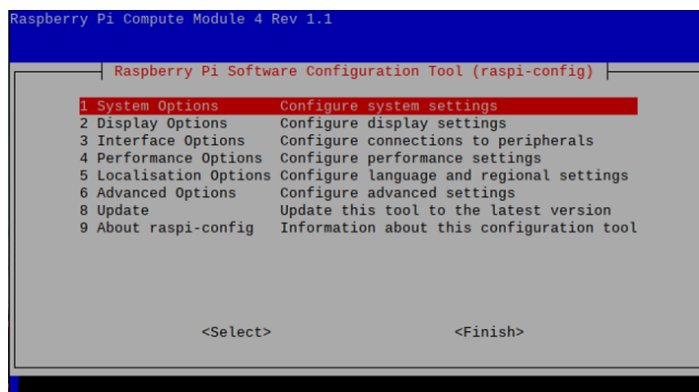
- Wi-Fi function is enabled.
- The Wi-Fi name and password that can be connected are prepared, for example, the Wi-Fi name is `EDATEC-WH` and the password is `password`.

Steps:

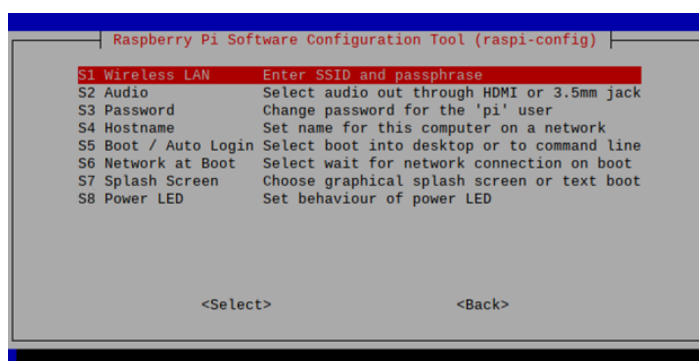
1. Open the terminal and execute the following command to open the `Raspberry Pi Software Configuration Tool (raspi-config)` interface.

```
sudo raspi-config
```

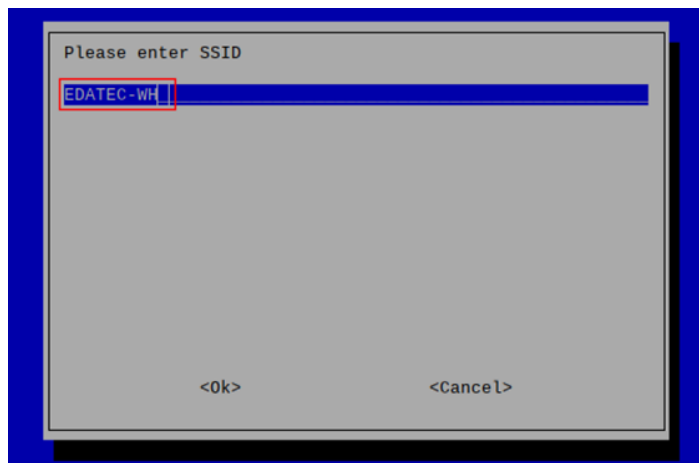
sh



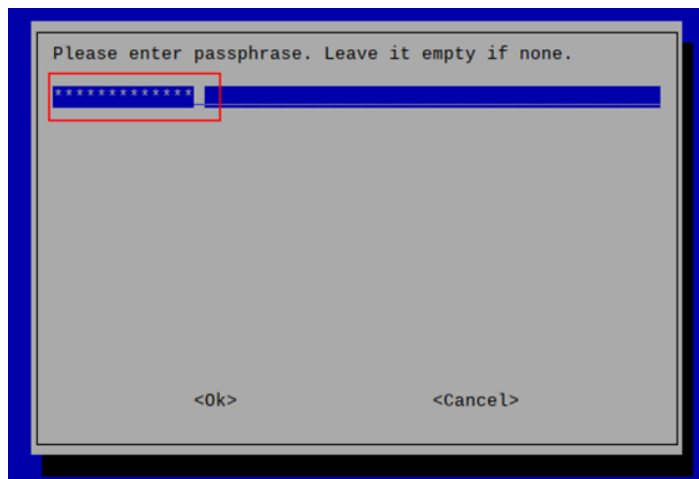
2. Select "1 System Options" and press "Enter", and then select "S1 Wireless LAN" in the interface.



3. Press "Enter", then input the Wi-Fi name in the **Please enter SSID** interface.



4. Press "Enter", then input the Wi-Fi password in the **Please enter passphrase**. Leave it empty if none interface.



5. Press "Enter" to connect Wi-Fi. When the Wi-Fi is connected successfully, select "Finish" and press "Enter" to complete the setting and return to the command line window.

## 5.6 Configuring Bluetooth

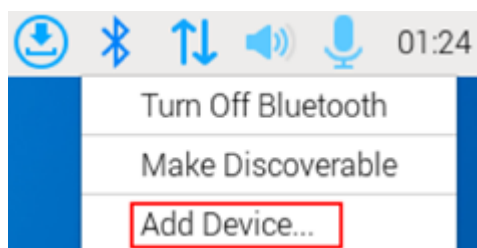
User can choose the device with Bluetooth version, and the Bluetooth function is enabled by default. You need to finish related configurations such as adding devices, scanning devices and device pairing before using Bluetooth.

### 5.6.1 Raspberry Pi OS (Desktop)

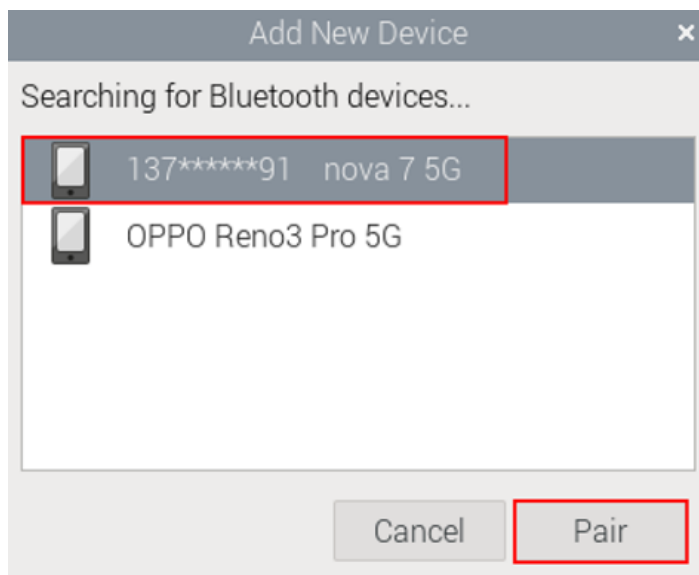
In the Desktop version of the operating system, you can use the desktop icon to configure Bluetooth.

Steps:

1. Left-click the icon  in the upper right corner of the desktop and select "Add Device" in the pop-up menu.



2. In the pop-up "Add New Device" pane, view the scanned Bluetooth devices. Then you can select a Bluetooth device, and click "Pair" to start pairing.



3. Select “OK” in the pop-up prompt box to confirm the pairing request.

Please confirm that '137\*\*\*\*\*91 nova 7 5G' is showing the code '645999' to pair

Cancel

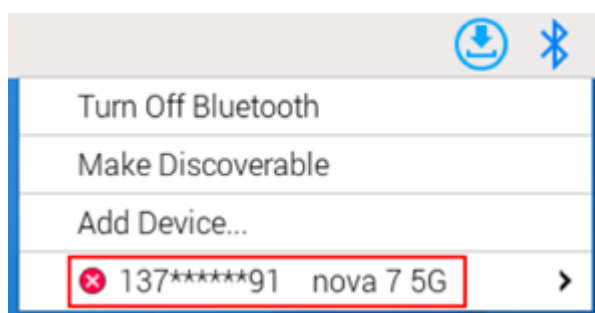
OK

#### TIP

You need confirm the pairing request on connected Bluetooth device, otherwise the pairing will fail.

4. After successful Bluetooth pairing, click “OK” in the pop-up prompt to close the page.

5. Left-click the icon  in the upper right corner of the desktop to view the connected Bluetooth device.



## 5.6.2 Raspberry Pi OS (Lite)

In the Lite version of the operating system, you can use the command line to configure Bluetooth.

### 5.6.2.1 Basic Configuration Command

| Command              | Function Description      |
|----------------------|---------------------------|
| bluetoothctl scan on | Enable Bluetooth scanning |

| Command                              | Function Description                                                    |
|--------------------------------------|-------------------------------------------------------------------------|
| bluetoothctl scan off                | Disable Bluetooth scanning                                              |
| bluetoothctl discoverable on         | Enable Bluetooth discovery (which can be discovered by the other party) |
| bluetoothctl discoverable off        | Disable Bluetooth discovery                                             |
| bluetoothctl trust *device_MAC*      | Trust device                                                            |
| bluetoothctl connect *device_MAC*    | Connect device                                                          |
| bluetoothctl disconnect *device_MAC* | Disconnect device                                                       |

### 5.6.2.2 Configuration Example

This chapter introduces how to configure Bluetooth through a configuration example.

Preparation:

The Bluetooth to be paired has been enabled and its name has been determined.

Steps:

1. Enter the Bluetooth view.

```
sudo bluetoothctl
```

sh

2. Enable bluetooth.

```
power on
```

sh

3. Scan Bluetooth device.

```
scan on
```

sh

Returned display information:

```
Discovery started
```

```
[CHG] Controller B8:27:EB:85:04:8B Discovering: yes
```

```
[NEW] Device 4A:39:CF:30:B3:11 4A-39-CF-30-B3-11
```

4. Find the name of the turned-on Bluetooth device.

```
devices
```

sh

Returned display information:

```
Device 6A:7F:60:69:8B:79 6A-7F-60-69-8B-79
Device 67:64:5A:A3:2C:A2 67-64-5A-A3-2C-A2
Device 56:6A:59:B0:1C:D1 Lefun
Device 34:12:F9:91:FF:68 test
```

5. Pairing target devices.

```
pair 34:12:F9:91:FF:68
```

sh

34:12:F9:91:FF:68 is target device's `device_MAC` .

Returned display information:

```
Attempting to pair with 34:12:F9:91:FF:68
[CHG] Device 34:12:F9:91:FF:68 ServicesResolved: yes
[CHG] Device 34:12:F9:91:FF:68 Paired: yes
Pairing successful
Pairing successful
```

#### TIP

The Bluetooth device to be connected also needs to confirm the pairing request, otherwise the pairing will fail.

6. Add as trusted device.

```
trust 34:12:F9:91:FF:68
```

sh

34:12:F9:91:FF:68 is target device's `device_MAC` .

Returned display information:

```
[CHG] Device 34:12:F9:91:FF:68 Trusted: yes
Changing 34:12:F9:91:FF:68 trust succeeded
```

## 5.7 Adjusting brightness and Volume

The ED-HMI3010-185C supports brightness and volume adjustment via physical buttons and software.

### 5.7.1 Adjust brightness and volume via buttons

After the ED-HMI3010-185C is powered on and displays normally, you can adjust the backlight brightness and output volume using the 5 side buttons.

| Button                                                                            | Description                                                              |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------|
|  | Press the button to increase the backlight brightness of the LCD screen. |
|  | Press the button to decrease the backlight brightness of the LCD screen. |
|  | Press the button to increase the output volume.                          |
|  | Press the button to decrease the output volume.                          |
|  | Press the button to mute the output audio.                               |

## 5.7.2 Adjust Brightness and Volume via Software

After the ED-HMI3010-185C is powered on and displays normally, the backlight brightness and output volume can be adjusted via software. The corresponding operation methods differ between the Desktop and Lite versions of the operating system.

### 5.7.2.1 Raspberry Pi OS (Desktop)

Introducing how to adjust backlight brightness via the UI in Raspberry Pi OS (Desktop).

Preparation:

- The ED-HMI3010-185C is powered on, displaying normally, and has been properly connected to the network.

Steps:

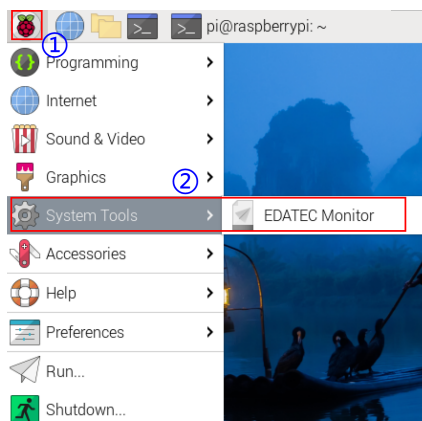
1. Add EDATEC apt repository by executing the following commands sequentially in the terminal.

```
curl -sS https://apt.edatec.cn/pubkey.gpg | sudo apt-key add -
echo "deb https://apt.edatec.cn/raspbian stable main" | sudo tee /etc/apt/sources.list.d/edatec
sudo apt update
```

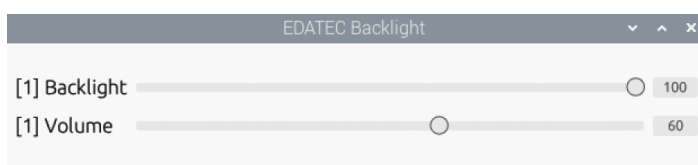
2. Install the software toolkit.

```
sudo apt install -y ed-ddcci-mib-tool
```

3. Click the  icon in the top-left desktop corner. Then select to "System Tools" → "EDATEC Monitor".



4. Adjust brightness and volume using the slider in the "EDATEC Backlight" panel.



#### TIP

Support executing the `sudo ed-ddc-ui` command in the terminal window to open the "EDATEC Backlight" panel.

## 5.7.2.2 Raspberry Pi OS (Lite)

Adjusting brightness and volume via CLI on Raspberry Pi OS (Lite).

Preparation:

- The ED-HMI3010-185C is powered on, displaying normally, and has been properly connected to the network.

Steps:

1. Add EDATEC apt repository by executing the following commands sequentially in the terminal.

```
curl -sS https://apt.edatec.cn/pubkey.gpg | sudo apt-key add -
echo "deb https://apt.edatec.cn/raspbian stable main" | sudo tee /etc/apt/sources.list.d/edatec.list
sudo apt update
```

2. Install the software toolkit.

```
sudo apt install -y ed-ddcci-mib-tool
```

sh

3. Execute the following commands to query the current brightness level and volume level settings separately.

- Query current brightness level:

```
sudo ed-ddc-server brightness read
```

sh

- Query current volume level:

```
sudo ed-ddc-server volume read
```

sh

4. Execute the following commands to set brightness level and volume level as required.

- Set brightness level:

```
sudo ed-ddc-server brightness write -v X
```

sh

Where **X** represents the brightness level with a range of 0~100.

- Set volume level:

```
sudo ed-ddc-server volume write -v Y
```

sh

Where **Y** represents the volume level with a range of 0~100.

## 6 Installing OS (optional)

The device is shipped with an operating system by default. If the OS is corrupted during use or the user needs to replace the OS, it is necessary to re-download the appropriate system image and install it. Our company supports to install the OS by installing the standard Raspberry Pi OS first, and then install the firmware package.

The following section describes the specific operations of image download, flashing to SD card and installation of firmware packages.

### 6.1 Downloading OS File

You can download the corresponding official Raspberry Pi OS file according to your actual needs, the download path is listed below:

| OS                                                   | Download Path                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Raspberry Pi OS(Desktop) 64-bit-bookworm (Debian 12) | <a href="https://downloads.raspberrypi.com/raspios_arm64/images/raspios_arm64-2024-11-19/2024-11-19-raspios-bookworm-arm64.img.xz">https://downloads.raspberrypi.com/raspios_arm64/images/raspios_arm64-2024-11-19/2024-11-19-raspios-bookworm-arm64.img.xz</a><br>( <a href="https://downloads.raspberrypi.com/raspios_arm64/images/raspios_arm64-2024-11-19/2024-11-19-raspios-bookworm-arm64.img.xz">https://downloads.raspberrypi.com/raspios_arm64/images/raspios_arm64-2024-11-19/2024-11-19-raspios-bookworm-arm64.img.xz</a> )                                                          |
| Raspberry Pi OS(Lite) 64-bit-bookworm (Debian 12)    | <a href="https://downloads.raspberrypi.com/raspios_lite_arm64/images/raspios_lite_arm64-2024-11-19/2024-11-19-raspios-bookworm-arm64-lite.img.xz">https://downloads.raspberrypi.com/raspios_lite_arm64/images/raspios_lite_arm64-2024-11-19/2024-11-19-raspios-bookworm-arm64-lite.img.xz</a> ( <a href="https://downloads.raspberrypi.com/raspios_lite_arm64/images/raspios_lite_arm64-2024-11-19/2024-11-19-raspios-bookworm-arm64-lite.img.xz">https://downloads.raspberrypi.com/raspios_lite_arm64/images/raspios_lite_arm64-2024-11-19/2024-11-19-raspios-bookworm-arm64-lite.img.xz</a> ) |

TIP

Our engineers are currently adapting and developing firmware packages for Raspberry Pi OS-trixie (Debian 13), so it is temporarily not supported. We recommend using the Raspberry Pi OS 64-bit-bookworm (Debian 12) version of the operating system.

### 6.2 Flashing to SD Card

It is recommended to use the Raspberry Pi official tools. The download paths are as follows:

- Raspberry Pi Imager: [https://downloads.raspberrypi.org/imager/imager\\_latest.exe](https://downloads.raspberrypi.org/imager/imager_latest.exe) ([https://downloads.raspberrypi.org/imager/imager\\_latest.exe](https://downloads.raspberrypi.org/imager/imager_latest.exe))
- SD Card Formatter: <https://www.sdcardformatter.com/download/> (<https://www.sdcardformatter.com/download/>)

Preparation:

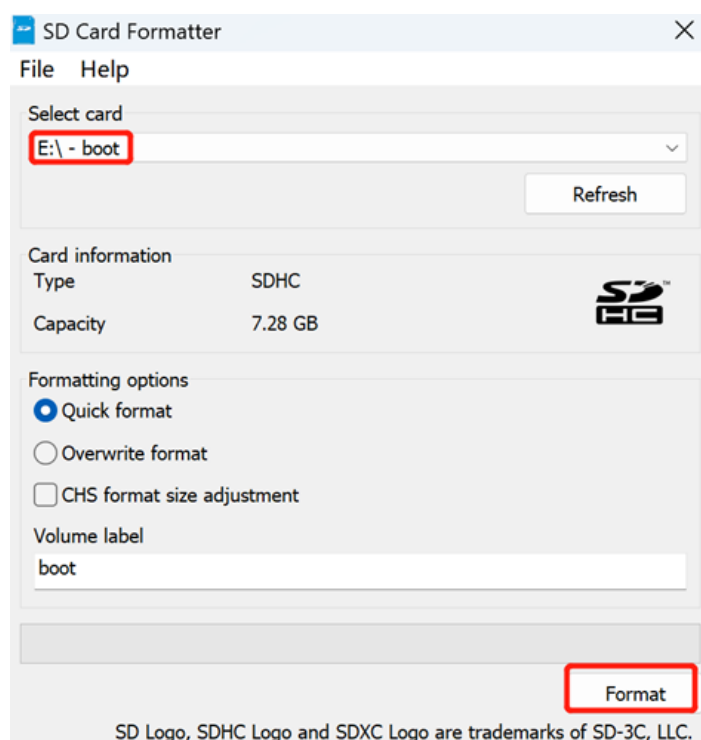
- The downloading and installation of the official tools to the computer have been completed.

- The OS file has been obtained.
- An SD card reader has been prepared.

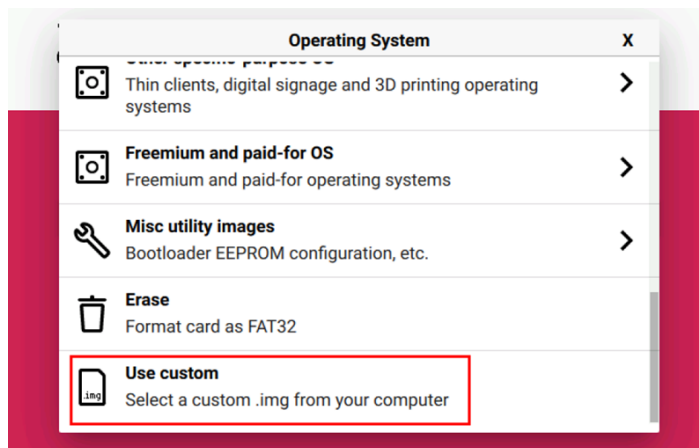
Steps:

The steps are described using Windows system as an example.

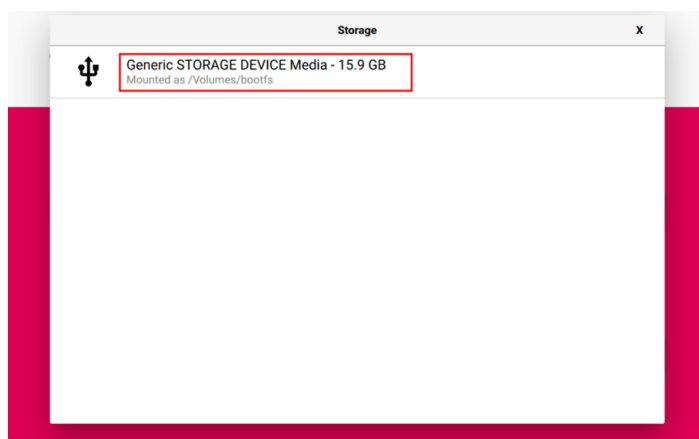
1. Disconnect power from the device and remove the Micro SD card. Refer to [2.1 Pull Out Micro SD Card](#) for detailed steps.
2. Insert the Micro SD card into the card reader, and then connect the card reader to the USB port on your computer.
3. Open [SD Card Formatter](#) , select the formatted drive letter, and click "Format" at the lower right to format.



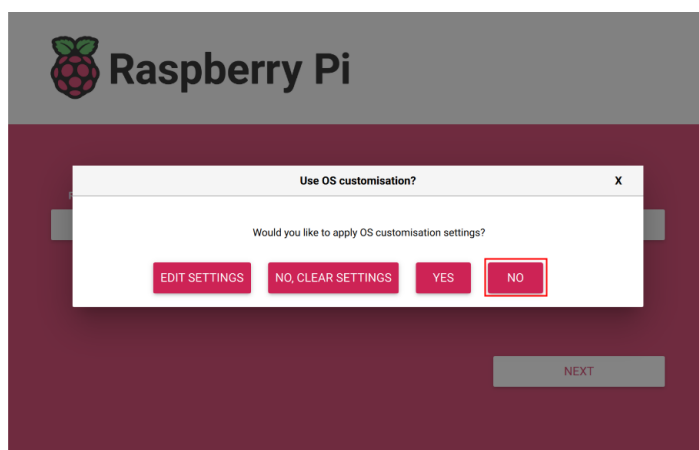
4. In the pop-up prompt box, select "Yes".
5. When the formatting is completed, click "OK" in the prompt box.
6. Close [SD Card Formatter](#) .
7. Open [Raspberry Pi Imager](#) , select "CHOOSE OS" and select "Use Custom " in the pop-up pane.



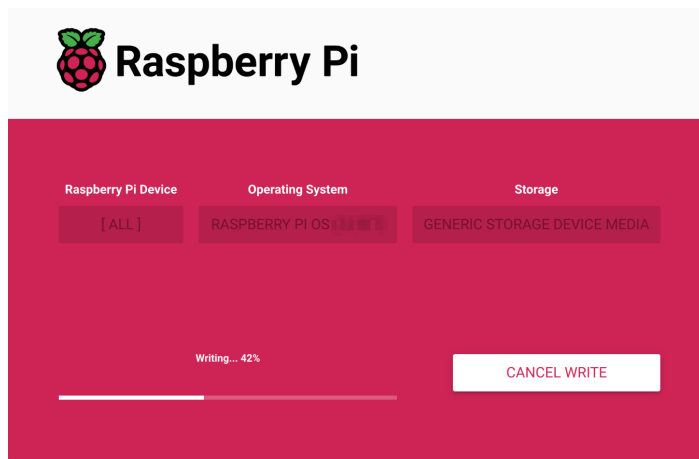
8. According to the prompt, select the OS file under the user-defined path and return to the main page.
9. Click "CHOOSE STORAGE", select the default device in the "Storage" interface, and return to the main page.



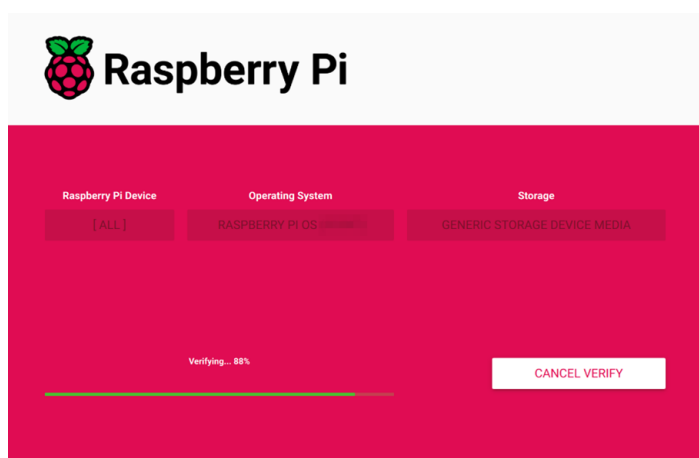
10. Click "NEXT", select "NO " in the pop-up "Use OS customization?" pane.



11. Select "YES" in the pop-up "Warning" pane to start writing the image.



12. After the OS writing is completed, the file will be verified.



13. After the verification is completed, click “CONTINUE” in the pop-up “Write Successful” box.

14. Close the [Raspberry Pi Imager](#) , remove the Micro SD card from the card reader.

15. Insert the Micro SD card into the Micro SD card slot of the device. For specific steps, please refer to [2.2 Insert Micro SD Card](#).

16. Restore power to the device and initiate a normal system startup.

## 6.3 Installing Firmware Package

After you have finished flashing to SD card on ED-HMI3010-185C, you need to configure the system by adding edatec apt source and installing firmware package to make the system work. The following is an example of Debian 12 (bookworm) desktop version.

### TIP

Our engineers are currently adapting and developing firmware packages for Raspberry Pi OS-trixie (Debian 13), so it is temporarily not supported. We recommend using the Raspberry Pi OS 64-bit-bookworm (Debian 12) version of the operating system.

Preparation:

- The flashing to SD card of the Raspberry Pi standard OS (bookworm) has been completed.
- The device has booted normally and the relevant boot configuration has been completed.

## Steps:

1. After the device starts normally, execute the following commands in the command pane to add the `edatec apt` source and installing firmware package.

```
curl -s https://apt.edatec.cn/bsp/ed-install.sh | sudo bash -s hmi3010_185c
```

sh

```
pi@raspberrypi:~$ curl -s https://apt.edatec.cn/bsp/ed-install.sh | sudo bash -s hmi3010_185c
% Total    % Received % Xferd Average Speed   Time    Time     Current
                                 Dload  Upload   Total   Spent    Left     Speed
100 186 100 186 0    0 1025 0 --:--:-- --:--:-- --:--:-- 1027
--2025-10-20 11:22:38-- https://apt.edatec.cn/bsp/splash.png
Resolving apt.edatec.cn (apt.edatec.cn)... 47.242.199.148
Connecting to apt.edatec.cn (apt.edatec.cn)|47.242.199.148|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 36009 (35K) [image/png]
Saving to: '/tmp/eda-common/eda/splash.png'

/tmp/eda-common/eda/splash.png 100%[=====] 35.17K --KB/s in 0.02s
2025-10-20 11:22:38 (1.45 MB/s) - '/tmp/eda-common/eda/splash.png' saved [36009/36009]

--2025-10-20 11:22:38-- https://apt.edatec.cn/pubkey.gpg
Resolving apt.edatec.cn (apt.edatec.cn)... 47.242.199.148
Connecting to apt.edatec.cn (apt.edatec.cn)|47.242.199.148|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1635 (1.6K) [application/octet-stream]
Saving to: '/tmp/eda-common/eda/edatec.gpg'

/tmp/eda-common/eda/edatec.gpg 100%[=====] 1.60K --KB/s in 0s
2025-10-20 11:22:38 (41.1 MB/s) - '/tmp/eda-common/eda/edatec.gpg' saved [1635/1635]
```

2. After the installation is complete, the system automatically reboots.
3. Execute the following command to check whether the firmware package is installed successfully.

```
dpkg -l | grep ed-
```

sh

The result in the picture below indicates that the firmware package has been installed successfully.

```
pi@raspberrypi:~$ dpkg -l | grep ed-
ii  ed-ddcci-mib-tool      1.20250604.1    all      EDATec MIB Monitor ddcci tool
ii  ed-monitor-firmware   1.20250730.1    all      Firmware of EDATec Software Package
ii  ed-touchscreen-test    1.20250731.1    all      EDATec touch screen test
ii  libparted-fs-resize0:armhf 3.5-3          armhf    disk partition manipulator - shared FS resizing library
ii  libshine3:armhf        3.1.1-2+b1     armhf    Fixed-point MP3 encoding library - runtime files
ii  shared-mime-info        2.2-1          armhf    FreeDesktop.org shared MIME database and spec
ii  usr-is-merged           37~deb12u1     all      Transitional package to assert a merged-/usr system
```

## TIP

If you have installed the wrong firmware package, you can execute `sudo apt-get --purge remove package` to delete it, where “package” is the package name.