7inch DSI Display -A

User Manual

1. Overview

- IPS full-angle display
- Large viewing angle
- True color
- Outstanding dynamic picture quality
- Energy saving and environmentally friendly
- 7.0-inch standard displayResolution 800×480
- Touch control
- With capacitive touch screen, support 5-point touch control, no need to download driver
- Compatible can be directly inserted into Raspberry Pi (Raspberry Pi 4B, Pi5)

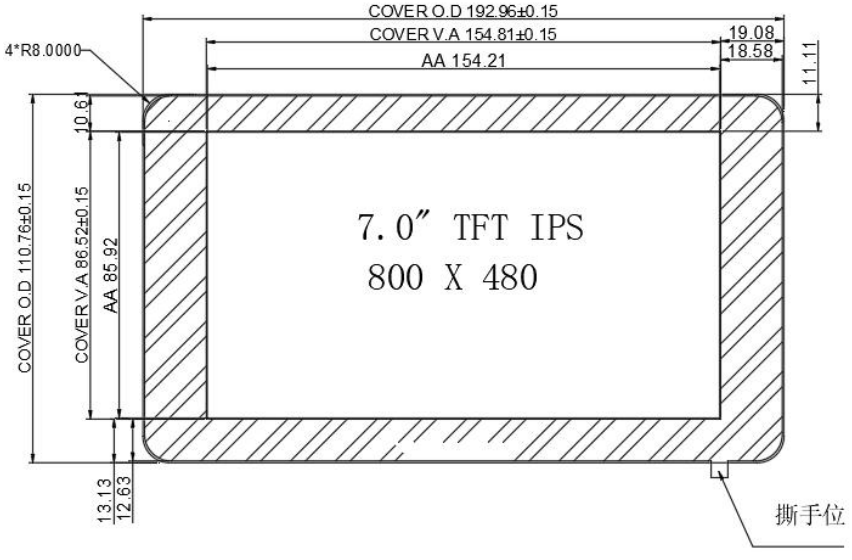
- Support Raspbian/Ubuntu/Kali system, provide drivers and images, wiki update
- Can be directly inserted into Raspberry Pi, no need to power the display separately

2. Parameter

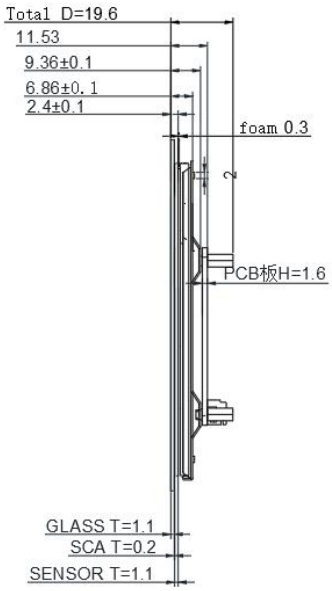
Item	Parameter	Unit
LCD Size	7.0	inch
Screen Material	IPS	-
LCD Resolution	800*480	pixels
Active Area	154.21 x 85.92	mm
Pixel size	0.1461 x 0.1462	mm
Viewing Angle	170	deg
Luminance(TYP)	400	cd/m2
Backlight type	LED	-
Working Temperature	-20~60	℃
Operation Temperature	-30~70	℃
Module Size	192.96x110.76x20.13	mm
Touch screen type	Capacitive	-
Working Voltage	5.0	v
Total Power	2.2	w
Packaging Weight	409	g

3. SIZE DRAWING

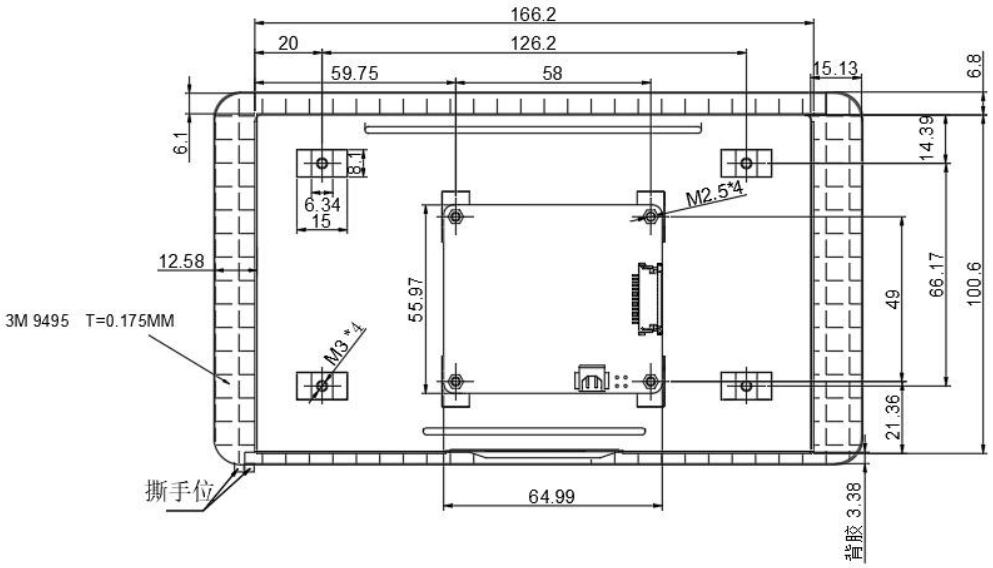
Fornt



Side


Total D=19.6
11.53
9.36±0.1
6.86±0.1
2.4±0.1
foam 0.3
2
PCB板H=1.6
GLASS T=1.1
SCA T=0.2
SENSOR T=1.1

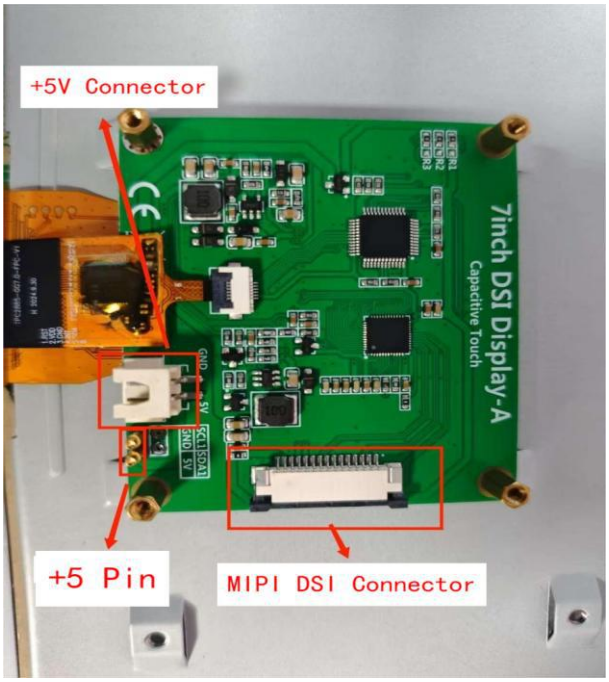
Back


166.2
20
126.2
59.75
58
15.13
6.8
6.1
14.39
6.1
6.34
15
M2.5*4
12.58
55.97
49
66.17
100.6
3M 9495 T=0.175MM
M3*4
21.36
撕手位
64.99
背胶 3.38

4. Packaging List



5. Hardware description



Give details; explain fully:

(1) **MIPI DSI Connector**：Specifications for 15 PIN, pitch of 1mm; MIPI DSI interface, connected to Raspberry Pi via FPC soft ribbon cable

(2) **+5V Pin**：Used to power from the bottom of the Raspberry Pi pin (the Raspberry Pi needs to be fixed to the module with screws and copper pillars

(3) **+5V Connector**：Power from the Raspberry Pi's upper pin with a Dupont line

6. How to use it

(1) Install Raspberry Pi OS according to the official tutorial steps, and put the Micro SD card into the Raspberry Pi.

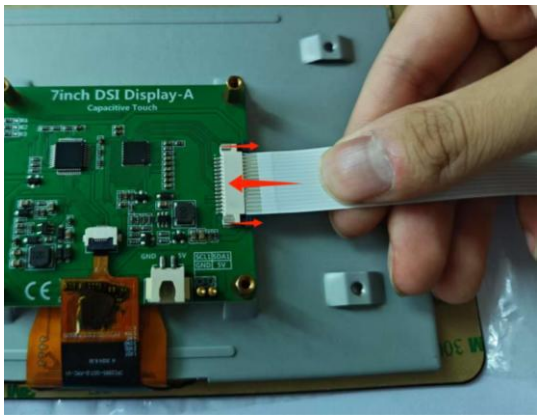


(2) Fix the Raspberry Pi to the copper pillar with 4 screws (M2.5), then connect the FFC flexible ribbon cable to the screen , connect it to the Raspberry Pi MIPI DSI interface , and finally connect the Raspberry Pi to the power cord;

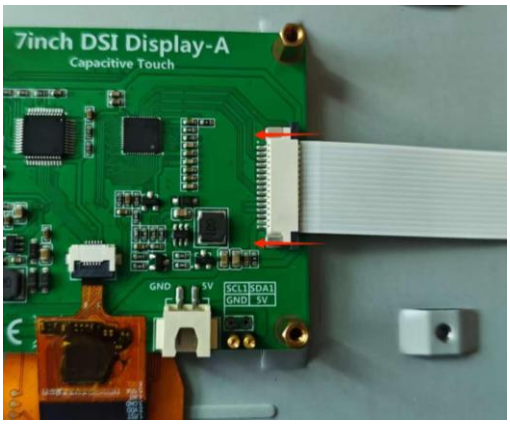
After the Raspberry Pi motherboard is powered on, the display and touch functions are normal.

How to connect Raspberry Pi (Method one):

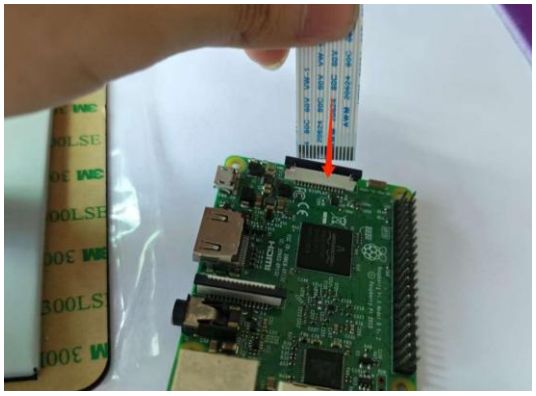
1.



2.



3.



4.



5.



6.

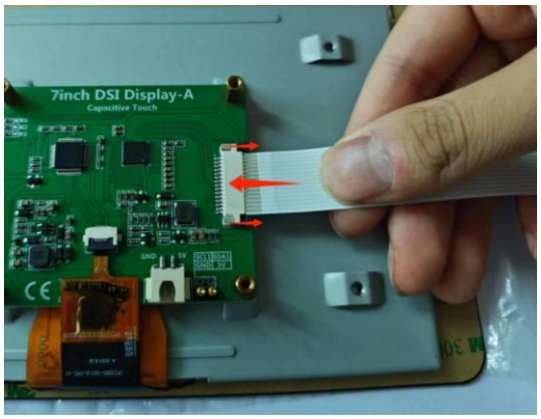


Note: All the materials used above are included in the parts list.

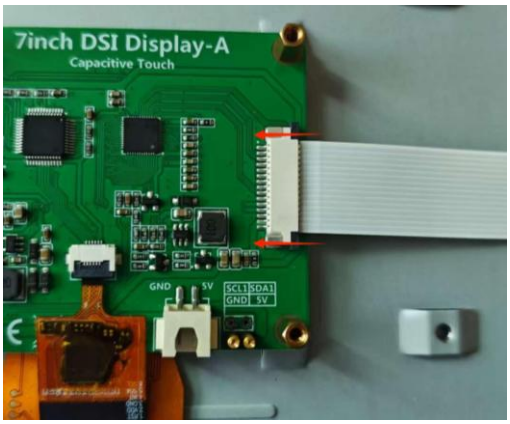
How to connect Raspberry Pi (Method Two):

If you don't want to fix the Raspberry Pi to the PCB, you can also use the following method: Note: When connecting using this method, a special 2P Dupont line must be used to connect the Raspberry Pi, the Raspberry Pi's 4 and6 ports are used for power supply, and incorrect connection may damage the module.

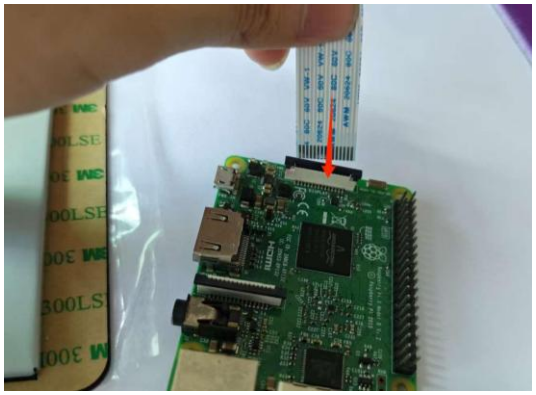
1.



2.



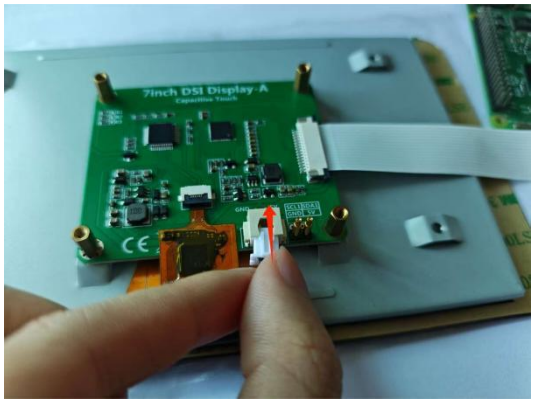
3.



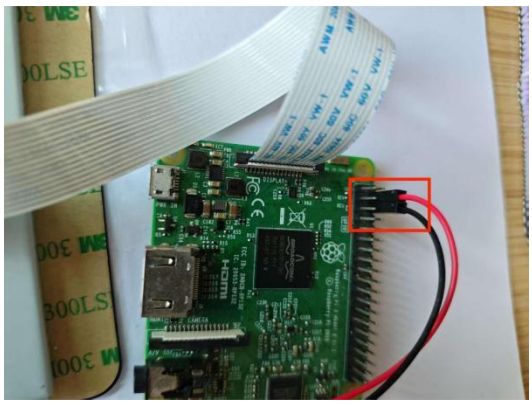
4.



5.



6.

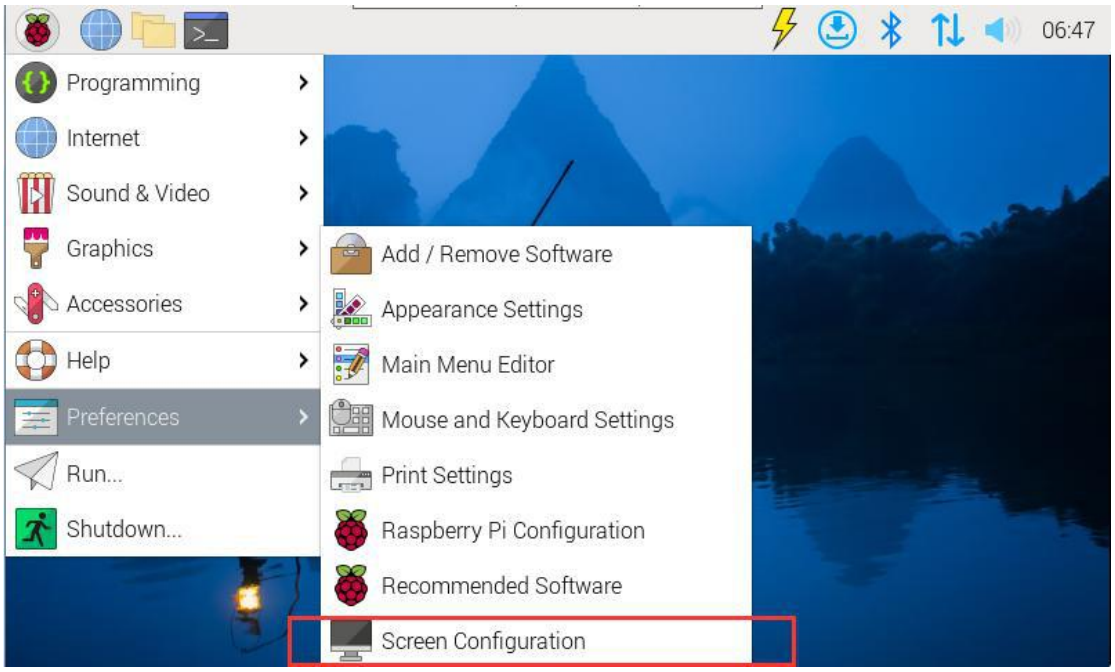


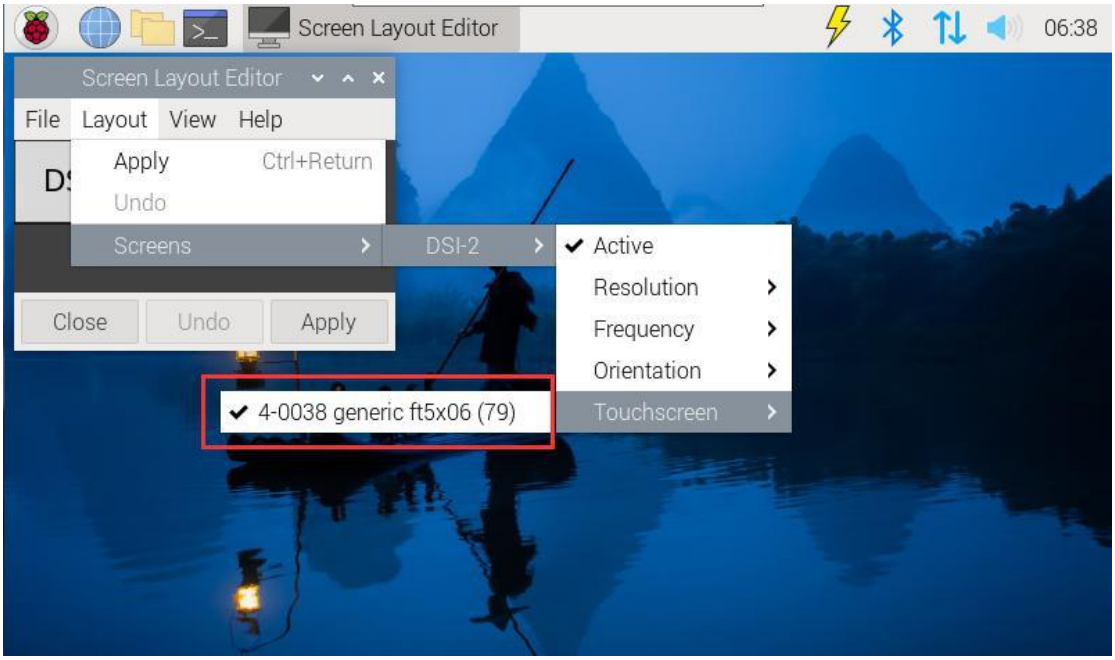
wiringPi 编码	BCM 编码	功能名	物理引脚 BOARD编码		功能名	BCM 编码	wiringPi 编码
		3.3V	1	2	5V		
8	2	SDA.1	3	4	5V		
9	3	SCL.1	5	6	GND		
7	4	GPIO.7	7	8	TXD	14	15
		GND	9	10	RXD	15	16
0	17	GPIO.0	11	12	GPIO.1	18	1
2	27	GPIO.2	13	14	GND		
3	22	GPIO.3	15	16	GPIO.4	23	4
		3.3V	17	18	GPIO.5	24	5
12	10	MOSI	19	20	GND		
13	9	MISO	21	22	GPIO.6	25	6
14	11	SCLK	23	24	CE0	8	10
		GND	25	26	CE1	7	11
30	0	SDA.0	27	28	SCL.0	1	31
21	5	GPIO.21	29	30	GND		
22	6	GPIO.22	31	32	GPIO.26	12	26
23	13	GPIO.23	33	34	GND		
24	19	GPIO.24	35	36	GPIO.27	16	27
25	26	GPIO.25	37	38	GPIO.28	20	28
		GND	39	40	GPIO.29	21	29

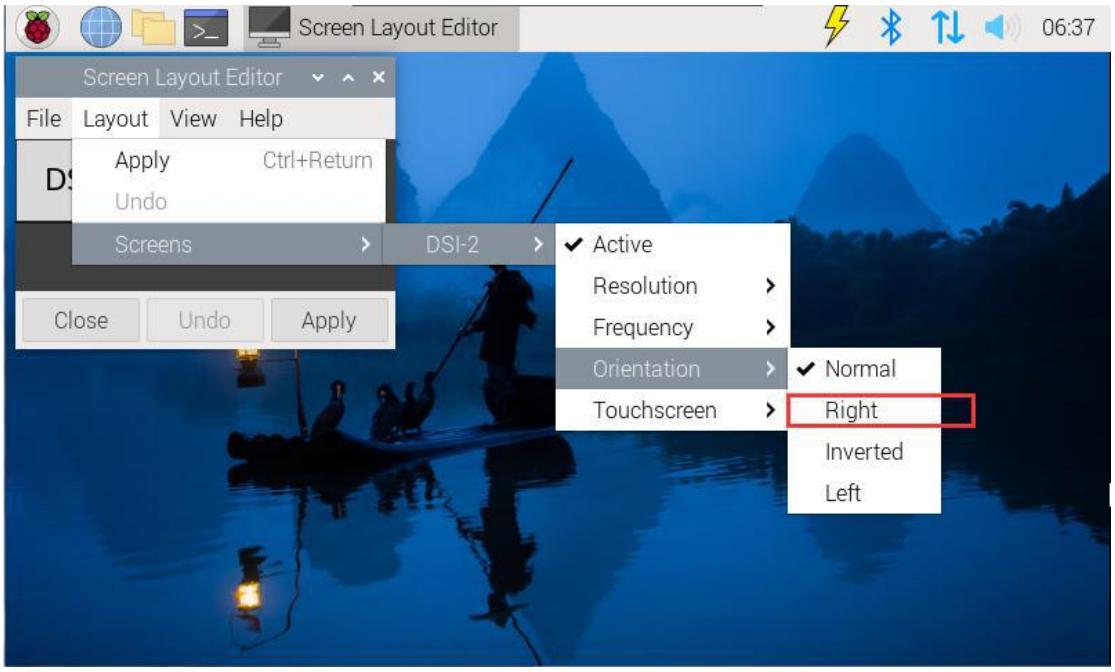
Raspberry Pi pin

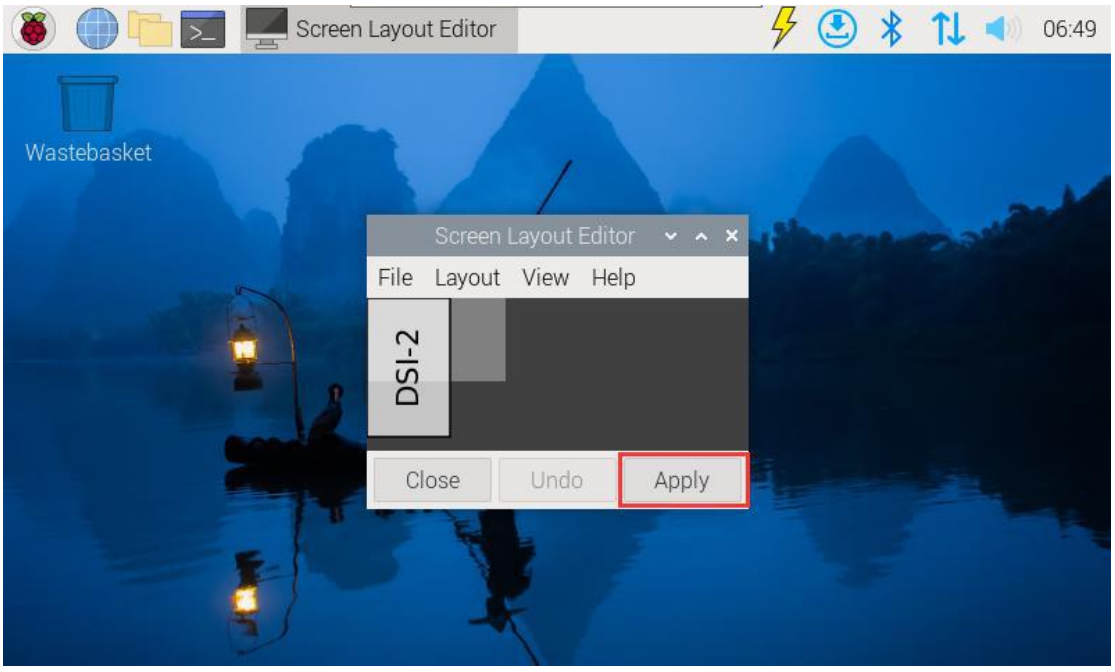
7. Display direction rotation

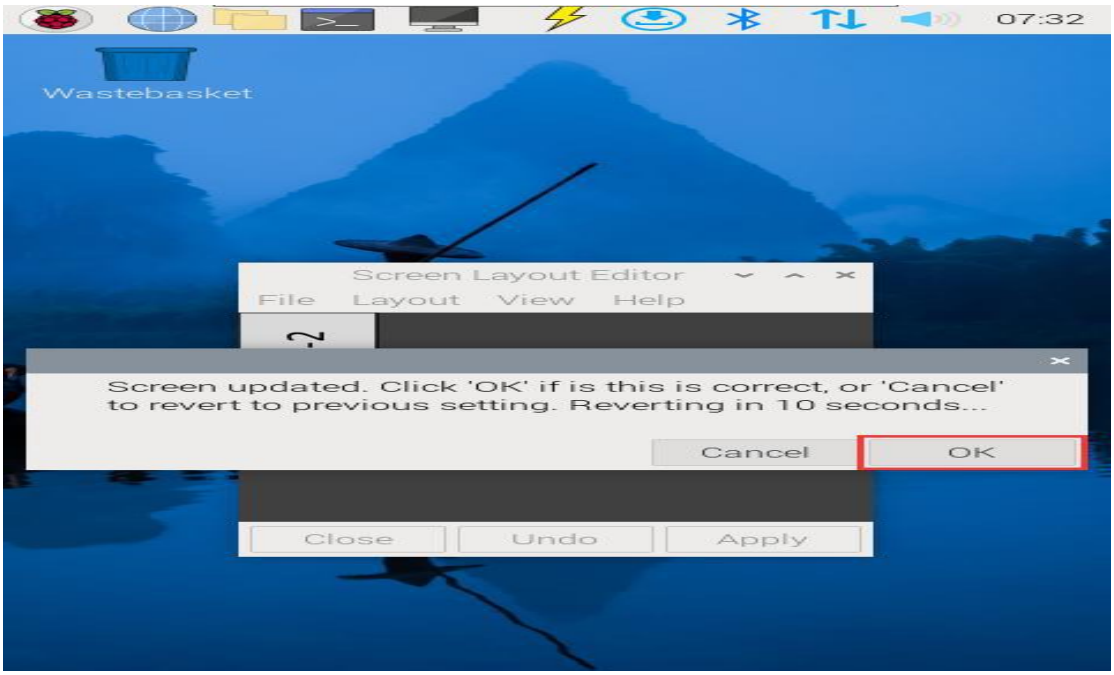
Following the method below, both the display and touch are rotated 90° clockwise.(Only for official systems after 2023-12-05, older versions of the system are not applicable)

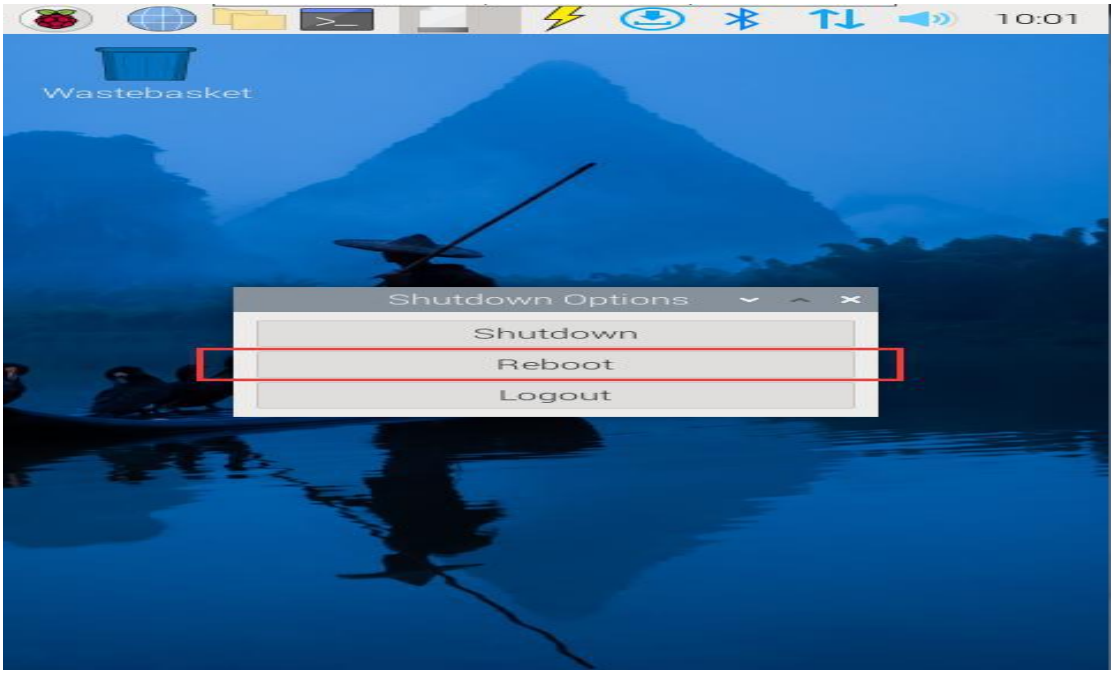

06:47
Programming
Internet
Sound & Video
Graphics
Accessories
Help
Preferences
Run...
Shutdown...
Add / Remove Software
Appearance Settings
Main Menu Editor
Mouse and Keyboard Settings
Print Settings
Raspberry Pi Configuration
Recommended Software
Screen Configuration


Screen Layout Editor
06:38
Screen Layout Editor
File
Layout
View
Help
Apply
Ctrl+Return
Undo
Screens
DSI-2
Active
Resolution
Frequency
Orientation
Touchscreen
Close
Undo
Apply
4-0038 generic ft5x06 (79)


Screen Layout Editor
06:37
Screen Layout Editor
File
Layout
View
Help
Apply
Ctrl+Return
Undo
Screens
DSI-2
Active
Resolution
Frequency
Orientation
Touchscreen
Normal
Right
Inverted
Left
Close
Undo
Apply


Screen Layout Editor
06:49
Wastebasket
Screen Layout Editor
File
Layout
View
Help
DSI-2
Close
Undo
Apply





8. How to install a virtual keyboard

Execute the following command：

```
sudo apt-get install matchbox-keyboard
```