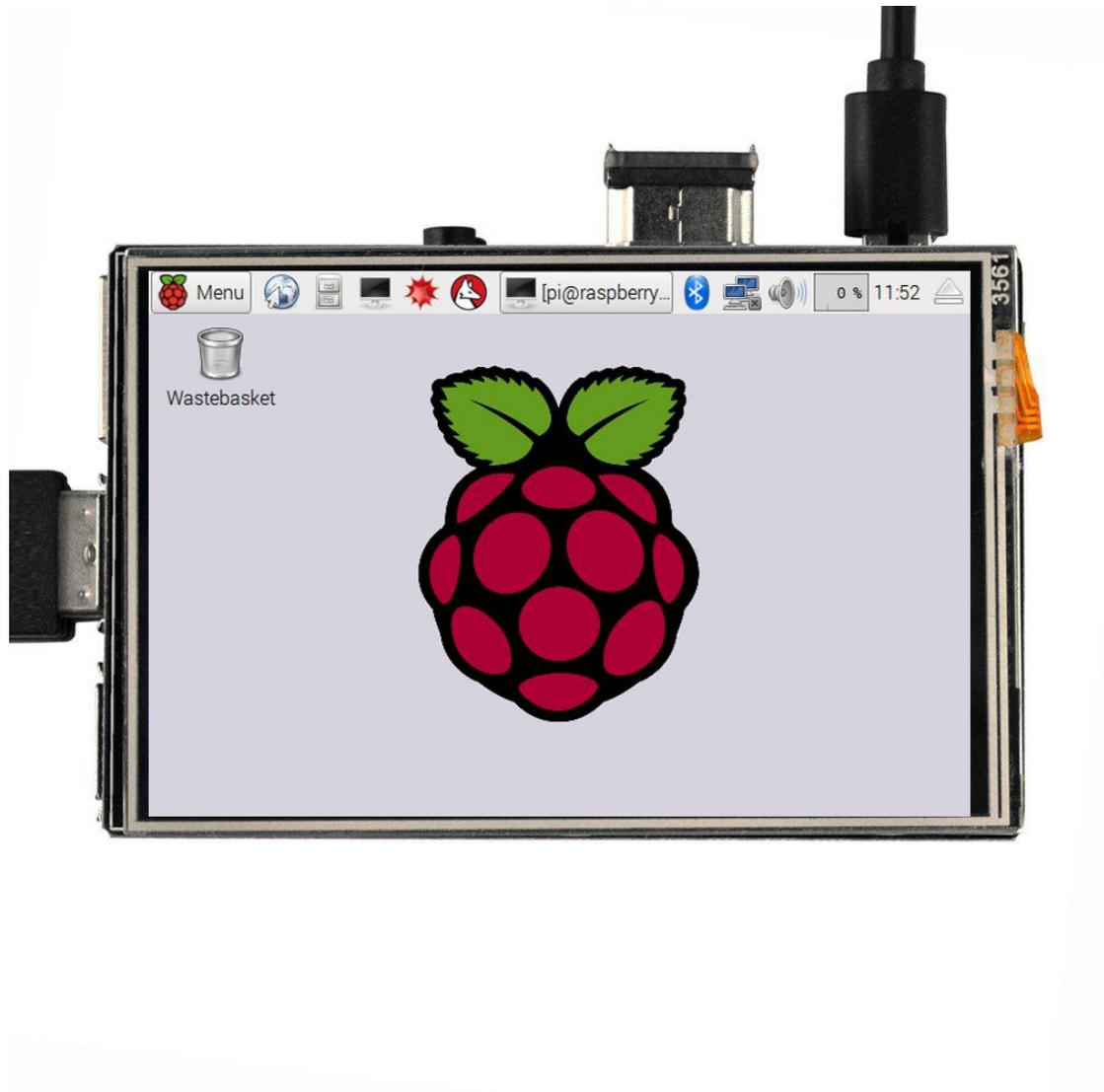


User Guide for 3.5" HDMI Touch Screen LCD



Online Customized Image Guide: <http://www.osoyoo.com/?p=3297>

Online Touch Driver Guide: <http://www.osoyoo.com/?p=4244>

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1. Note:

1. In this guide, we introduce two way to install the touch driver for the HDMI LCD: customized image and separated touch driver.

2. The customized image method talks about a customized image which is combined 3.5" LCD driver and a fresh OS (only support Raspbian, Kali, and Ubuntu OS). The advantage of this way is that it is convenient for beginners. The shortcoming is that it can't work with OS existing in your raspberry pi.

3. The separated touch driver method can install the raspberry pi existing OS (Only support Raspbian, and Ubuntu OS). The advantage of this way is that it can work with OS existing in your raspberry pi. The shortcoming is that it is complex for beginners.

4. This HDMI LCD is a touch screen which supports touch input and display. However, touch input function can **only** work with OS raspbian, ubuntu and Kali(Kali OS just support customized image method)and you must insert the LCD into GPIO ports directly.

If you want to use other OS such as Retrope, PiPlayer, windows10 etc or you need connect the LCD only with HDMI cable, the LCD display function can work properly, but touch input will not work and you need use other external input devices such as USB keyboard and mouse.

5. This HDMI LCD display resolution is 480*320. It also supports input resolutions up to 1920*1280 resolution. However, those resolutions higher than 480*320 will be compressed to 480*320 in the LCD display. When resolution is compressed, the screen display ratio might be changed accordingly.

6. Please make sure that your TF card (Micro SD) hase enough space to write the driver

7. The login username and pass word for raspbian, kali and ubuntu:

Raspbian: username: pi, Password: raspberry

Kali: Username: root, Password: toor

Ubuntu: Username: ubuntu, Password: ubuntu

2. Customized Image Installation Guide (for OS raspbian, Ubuntu and Kali)

Step 1: Connecting touch screen LCD display to your Raspberry Pi



Step 2: Download Customized Image for HDMI LCD screen Driver Download
Tutorial Page: <http://osoyoo.com/driver/rpiscreen-hdmi.html>

Select OS(Recommend Raspbian) which you will freshly install with the screen driver.

Download Driver Image based on **Raspbian**



Download Driver Image based on **Ubuntu**



Download Driver Image based on **Kali**



Step 3: Using WinRAR to unzip the driver image file downloaded from step 2. If you don't have WinRAR, please download from WinRAR official website: <http://www.win-rar.com/start.html?&L=0>



The banner features the WinRAR logo on the left, a search bar with the text "Search enter your search term here" on the right, and a language dropdown menu set to "English".

A blue software box for WinRAR 5.40, showing a stack of colorful files.

WinRAR 5.40

Compress, Encrypt, Package and Backup with only one utility

Over 500 million users worldwide make WinRAR the world's most popular compression tool today.

There is no better way to compress files for efficient and secure file transfer, faster e-mail transmission and well organized data storage.

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A blue button with a download icon and the text "Download WinRAR".

[click here for 64bit version](#)

A logo for "People's Choice" featuring a globe.

Step 4: Prepare an newly formatted MicroSD memory card(TF card) with USB microSD card reader, recommend sizes are 8G, 16G, 32G. If you don't know how to format MicroSD card, please download SDFormatter from: https://www.sdcard.org/downloads/formatter_4/.

SD Card Formatter 4.0 for Windows and Mac

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Released on January 30, 2013

Released on January 30, 2013

SD Card Formatter 4.0 for Windows User's Manual

Download the SD Card Formatter 4.0 for Windows User's Manual from the buttons below:

English
(337k)

Japanese
(332k)

Traditional Chinese
(517k)

Simplified Chinese
(423k)

Step 5: Download the Win32DiskImager utility from Sourceforge:

<https://sourceforge.net/projects/win32diskimager/>

Summary | Files | Reviews | Support | Wiki | Feature Requests | Bugs | Code | Mailing List

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Download
"Holy cow, we made a 1.0 Release"

Browse All Files

Win32 Disk Imager - 1.0

Image File: [] Device: []

Hash: None [Generate] [Copy]

Read Only Allocated Partitions

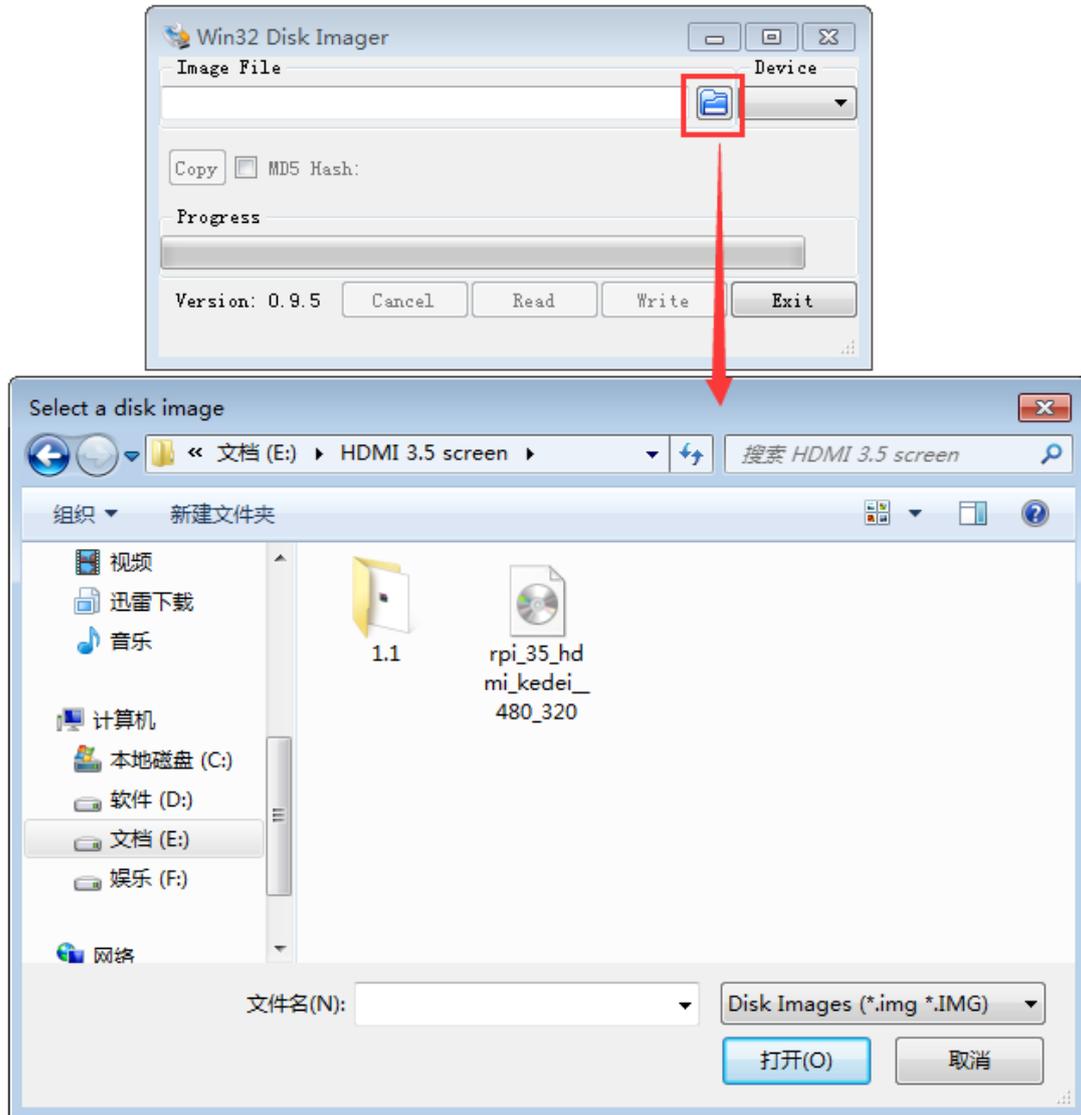
Progress: []

Cancel Read Write Verify Only Exit

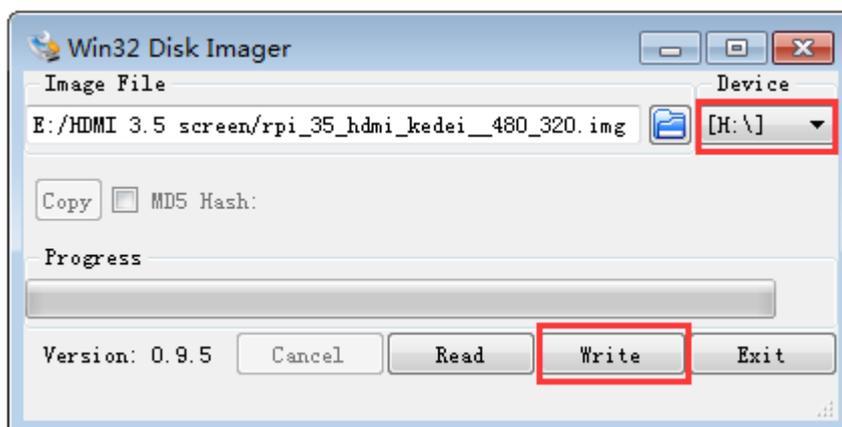
Waiting for a task

Step 6: Run the Win32DiskImager utility. You may need to run the utility as administrator. Right-click on the file, and select Run as administrator.

Step 7: Browse the unzip driver image file from Step 3:



Step 8: Select correct device you prepared and click “write” to burn the driver image file (from Step 3) into MicroSD card. *Note: Please confirm you choose the correct SD card, or you’ll damage the files in your device*



Step 9: Insert MicroSD card from step 8 into your raspberry pi and power it up. You should see the display come alive in a few seconds as following graph:



Step 10: How to play MP4 video? Download any mp4 video file from internet, and run following command to play the video:

`sudo omxplayer -r YOURVIDEO.mp4` //replace YOURVIDEO.mp4 with the your download video file name

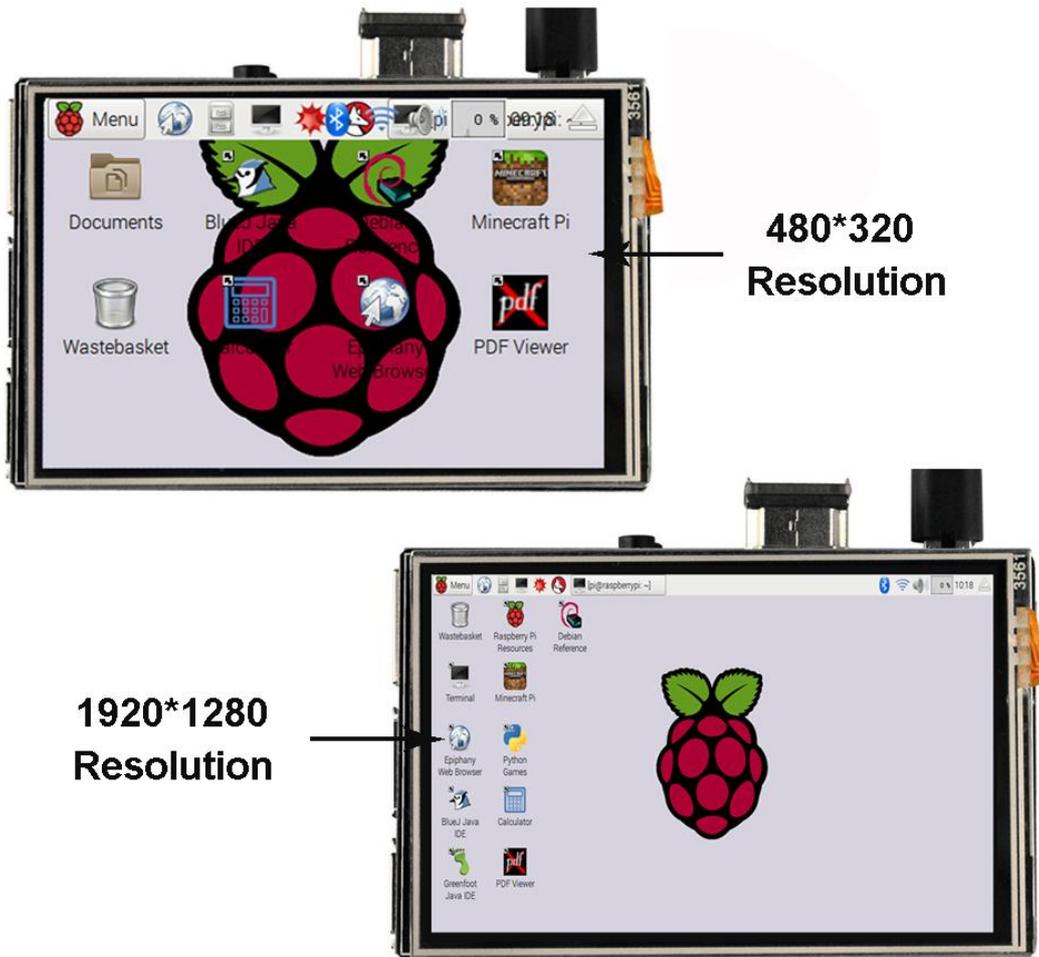


Step 11: If you can't see full screen, you can adjust resolution setting, i.e. set to 810 x 540. Please change the config.txt file in SD card, find the line hdmi-cvt and change the resolution in this line. After changing config.txt, save and restart Pi.

```
30  
31 hdmi_force_hotplug=1  
32 hdmi_group=2  
33 hdmi_mode=87  
34 hdmi_cvt 480 320 60 6 0 0 0  
35
```

*This HDMI LCD display resolution is 480*320. It also supports input resolutions up to 1920*1280 resolution. However, those resolutions higher than 480*320 will be compressed to 480*320 in the LCD display. When resolution is*

compressed, the screen display ratio might be changed accordingly



3. Separated Touch driver installation guide for OS raspbian and ubuntu

Note: You can install the touch driver for 3.5" HDMI touch screen based on the existing system, but it just supports raspbian and ubuntu system.

Step 1. Burn OS system (raspbian and ubuntu) in a TF card/micro SD card, and insert this card in your raspberry Pi

Step 2. Connect the raspberry pi with 3.5" HDMI touch screen and make sure that the network is available for raspberry pi (Now the touch function can't work)

Step 3. Download 3.5" HDMI touch screen driver on your PC:
<https://drive.google.com/drive/folders/OB0yi2A0LygMPV3FjX0c0bIRWYWM?usp=sharing>

Step 4. Copy the driver into a NEW USB flash, and insert to Raspberry Pi.

Step 5. Copy the driver and paste it to the folder of raspberry pi. (*Note: Raspbian Direction: Pi; Ubuntu direction: XXX's home, XXX means your username of ubuntu*)

Step 6. Enter the following command in terminal to change the executable permissions of file:

sudo chmod 777 LCD_show_35hdm.tar.gz

Step 7. Enter the following command in terminal to unzip the file:

tar -xzf LCD_show_35hdm.tar.gz

Step 8. Enter the following command in terminal to enter the files after Unzip:

cd LCD_show_35hdm

Step 9. Enter the following command in terminal to update the system (optional):

sudo apt-get update

Step 10. Enter the following command in terminal to back up data (optional)

sudo ./LCD_backup

Step 11. choose one command as follow to install suitable resolution driver:

Resolution 480*320: *sudo ./LCD35_480*320*

Resolution 720*480: *sudo ./LCD35_720*480*

Resolution 810*540: *sudo ./LCD35_810*540*

Step 12. Wait for a while, the driver would be installed and reset automatically, insert the 3.5" HDMI screen and turn on.

If you want to install the previous system, please use the command :

sudo ./LCD_restore

Now you have completed to install the touch driver for 3.5" HDMI touch screen.

Step 13. How to update the system

If you want to update the system, please do it as per the following steps:

1) Keep the core and driver locked and unchanged

sudo apt-mark hold raspberrypi-kernel

2) Keep the resolution unchanged

sudo apt-mark hold raspberrypi-bootloader

3) Update the system

sudo apt-get update

sudo apt-get upgrade

Note: Command "sudo apt-get dist-upgrade" Not recommend to update the system. As it would be the newest update but maybe not safe

4. FAQ:

1.Q: Is it possible to use it as a standard HDMI monitor? E.g. with PS4 or a laptop with HDMI output?

A: Believe it or not, but yes it can. In fact, I've used it with my desktop PC. Now, because of the size, it's nearly impossible to see any details. Plus, the touch features only work on Raspberry Pi. However, the display part works just fine on anything with HDMI output.

2. Q: 1920*1080 real?

A: it's at least really close to it. The difficult part is getting your icons and desktop large enough to see anything. You won't be able to use the plain command line without changing the font to be much larger (about 20pts before

I could even read it).

3. Q: How many watts does this need to operate?

A: I tested the LCD with 5V 2.5A power supply, and it works well

4. Q: What is the native resolution of this display?

A: This HDMI LCD display resolution is 480*320. It also supports input resolutions up to 1920*1280 resolution. However, those resolutions higher than 480*320 will be compressed to 480*320 in the LCD display.

5. Q: Is it just a plug and play if you don't use the touch function?

A: Yes it basically is plug and play excluding the touch screen. I have found it is way undersized for practical use.

6. Q: Will this work with the Pi Zero

A: The HDMI LCD can't mount on pi zero directly. If you don't mind this, the LCD can work with Pi Zero. This LCD needs another Micro USB power and a HDMI to HDMI cable.

7. Q: Will it display retroPie? I don't care about touch capabilities, so I'll ask more clearly. Will it "display" retroPie?

A: Yes, it can display

8. Q: Can it still output to HDMI at the same time?

A: It can't do like this, as the HDMI port of Raspberry Pi is used when you use this screen

9. Q: Compatible with Windows 10 IoT Core?

A: You can run it however the touch capabilities won't work.

10. Q: Does the display actually need to use pin 3 (i2c1 sda)? I have several sensors that I need to hook up to i2c1

A: You need a HDMI to HDMI cable to replace the HDMI adapter, another micro USB cable to provide power supply for LCD. It can display as a monitor, but it can't use touch function

11. Q: The touch function cannot work

A: Touch function only works when the screen was mounted directly on GPIO pins on Raspberry Pi board, if you power the screen and connect the screen to Raspberry board with HDMI cable, then NO TOUCH FUNCTION!!!

12. Q: How to rotate the display interface by 180 degrees?

A: You can rotate the display 180 degrees by changing the config file, setting the value as "display_rotate=2 180 degrees".

If you install our customized image it cannot rotate the screen.
So you have to install the driver separately firstly, please follow the installation
guide as: <http://www.osoyoo.com/?p=4244>