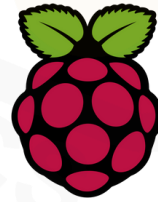




X



USER MANUAL

3.5" 480x320 TFT Display with Touch Screen for Raspberry Pi



Parameters

Size: 3.5"

SKU: MLE00111

Resolution: 480x320

Aspect Ratio: 8:5

Dimensions: 85.42mm x 55.60mm

Touch: 4-wire resistive touch

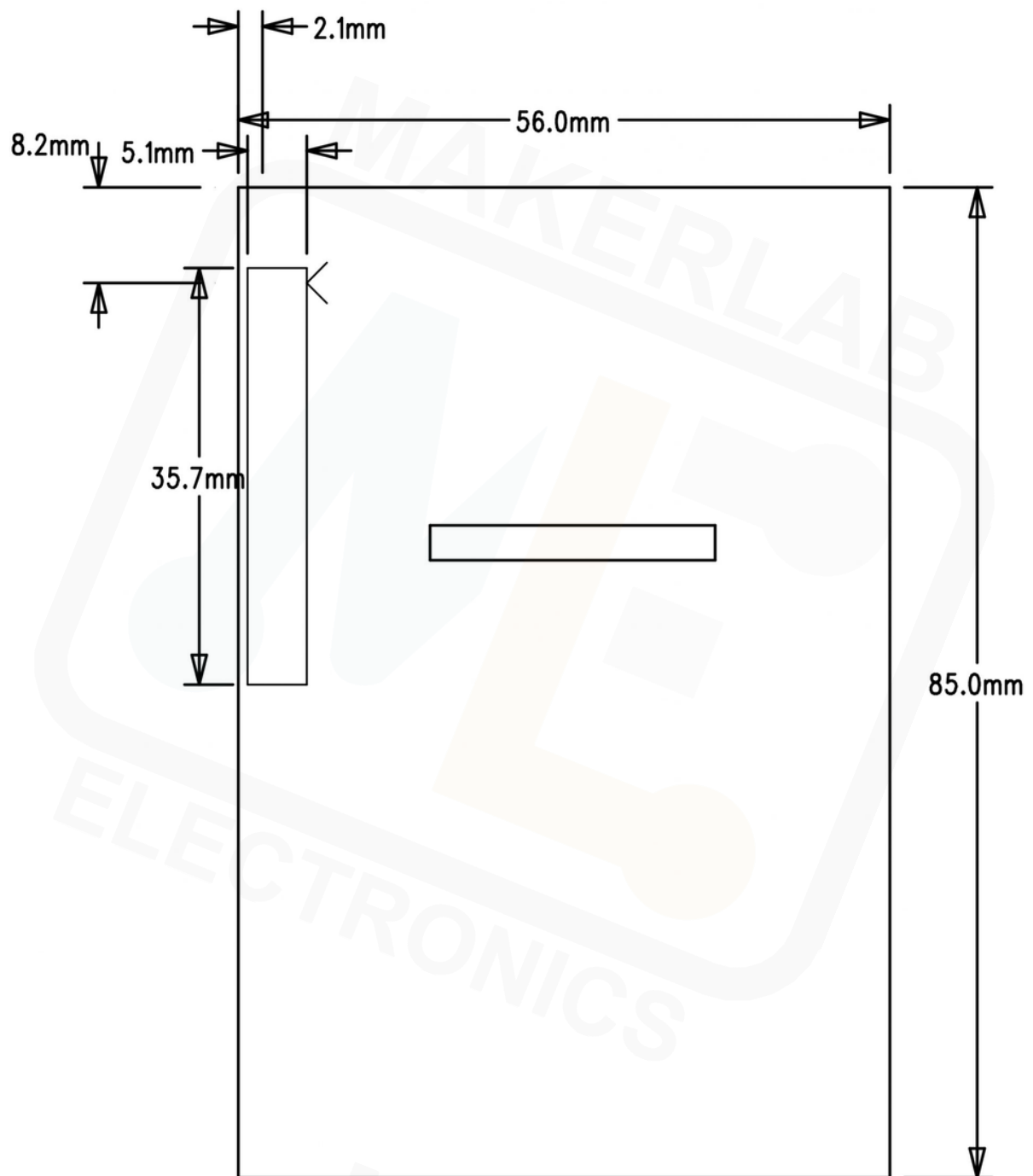
Weight: Net Weight 51g, Gross Weight 78g

Compatible with Raspberry Pi A, B, A+, B+, Pi2, 4, and 4B

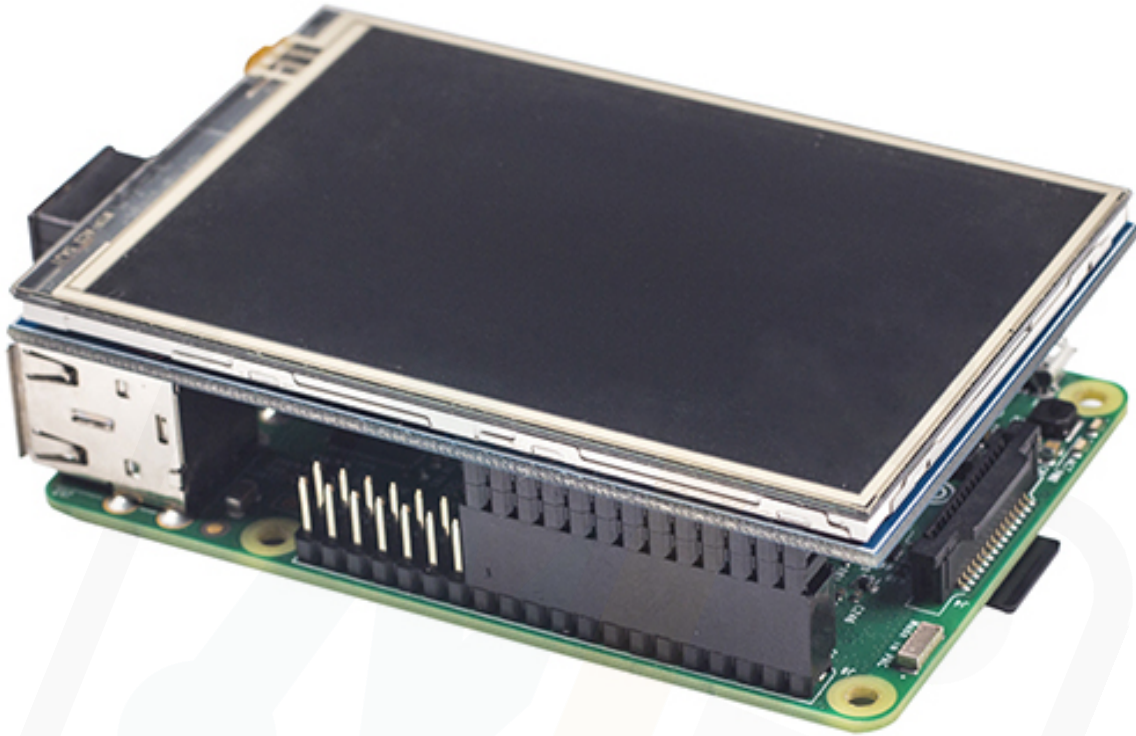
Pinout

Pin	Symbol	Description
1, 17	3.3V	Power positive (3.3V power input)
2, 4	5V	Power positive (5V power input)
3, 5, 7, 8, 10, 12, 13, 15, 16	NC	NC
6, 9, 14, 20, 25	GND	Ground
11	TP_IRQ	Touch Panel interrupt, low level while the Touch Panel detects touching
18	LCD_RS	Instruction/Data Register selection
19	LCD_SI / TP_SI	SPI data input of LCD/Touch Panel
21	TP_SO	SPI data output of Touch Panel
22	RST	Reset
23	LCD_SCK / TP_SCK	SPI clock of LCD/Touch Panel
24	LCD_CS	LCD chip selection, low active
26	TP_CS	Touch Panel chip selection, low active

Dimensions



Dimensions



Interface the 3.5" Display to your Raspberry Pi this way to avoid short circuiting the TFT Display

Make sure to follow this placement orientation as it is very easy to misplace the display!

Utilizing the TFT Display

Before we start, make to **download** the Raspberry Pi Imager

Install Raspberry Pi OS using Raspberry Pi Imager


Raspberry Pi Imager is the quick and easy way to install Raspberry Pi OS and other operating systems to a microSD card, ready to use with your Raspberry Pi.

Download and install Raspberry Pi Imager to a computer with an SD card reader. Put the SD card you'll use with your Raspberry Pi into the reader and run Raspberry Pi Imager.

[Download for Windows](#)

[Download for macOS](#)

[Download for Ubuntu for x86](#)



Download the suitable installer to your machine's operating system!

After downloading and installing the imaging software. Launch it and you should be presented with this:

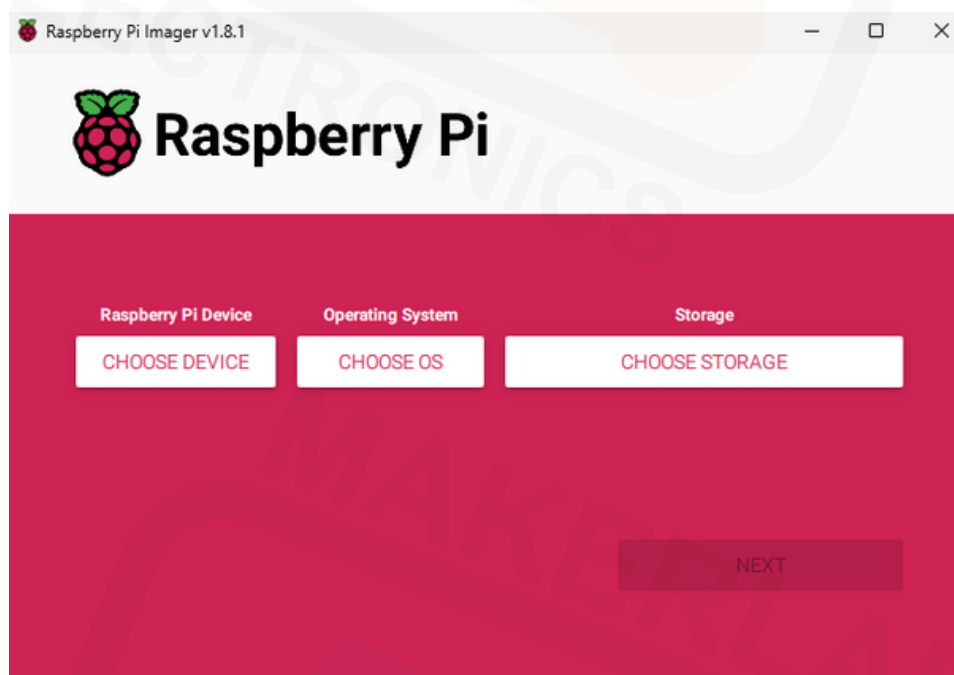
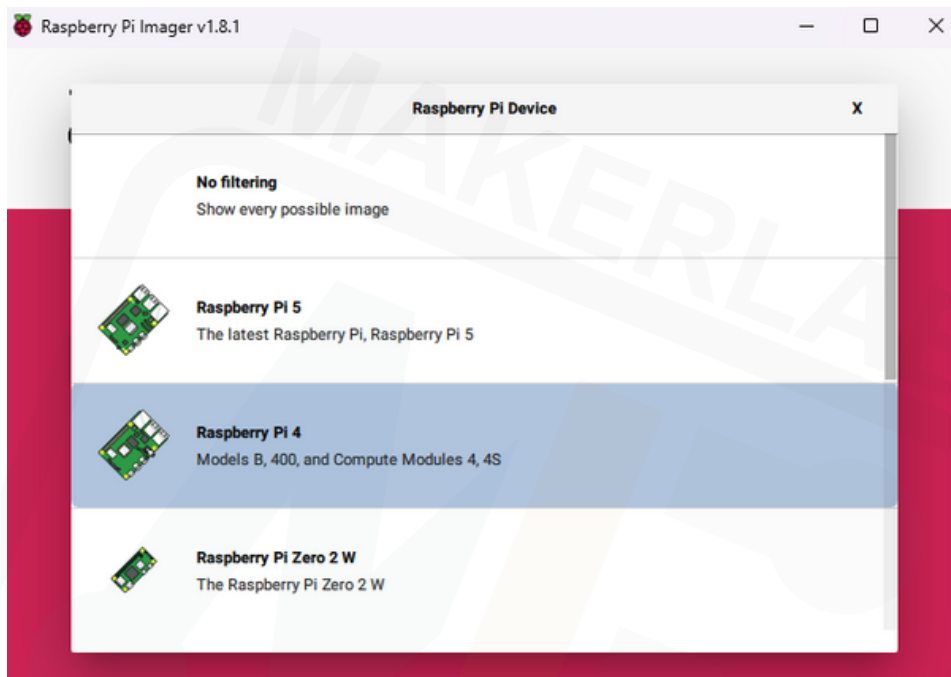


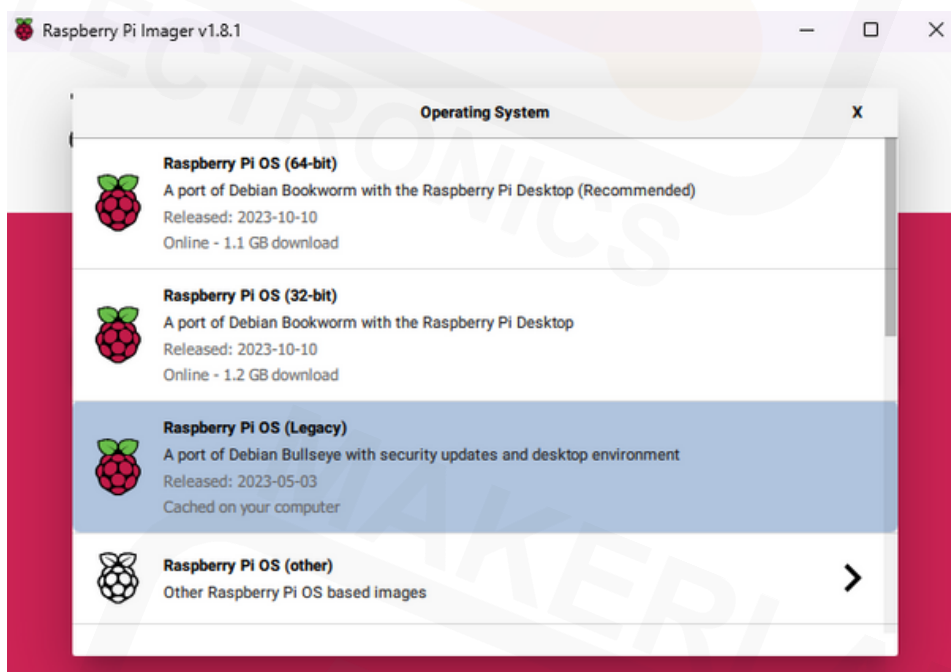
Image Flashing

You'll be needing a **microSD Card** and a **Card Reader** in order to flash an **Operating System** for your Raspberry Pi. In this case we will use a **Raspberry Pi 4B**.



Select the device according to the one you're using!

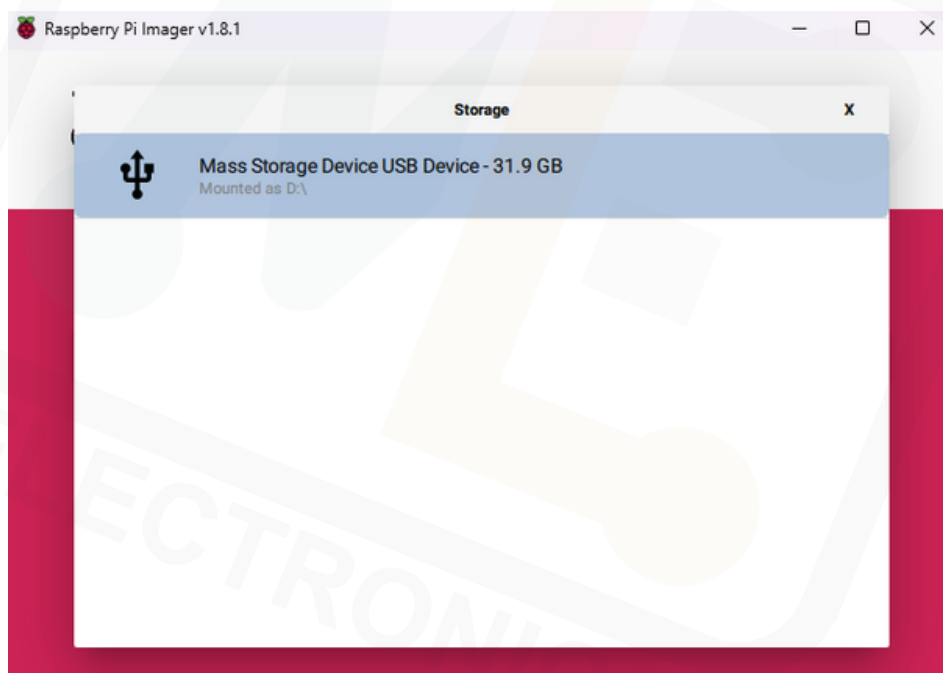
Now select the Operating System for your Raspberry Pi



Note: Apparently, the 3.5-inch TFT Display does not work with the newest Raspberry Pi OS, according to our research. However, the Legacy OS is the operating system that will work with the TFT Display.

It is also worth noting that if you ever flash the latest OS and attempt the instructions stated next in this manual, you will brick your OS, and you will need to flash a new one to your microSD card.

Next, select the **Storage Device** where the Imager will flash the OS you chose.



Select the storage device according to the one you're using!

Once the Imager is done with the flashing, eject the card reader from your computer and insert the microSD card into your **Raspberry Pi**

Interfacing the TFT Display

In this part, you will need the following:

- ✚ Monitor
- ✚ HDMI cable
- ✚ Mouse and Keyboard
- ✚ Raspberry Pi Power Supply

First, connect an external display/monitor to your Raspberry Pi as this will act as your main monitor for the meantime until we finally utilize the TFT Display.

Make sure to do the necessary setup process upon powering your Raspberry Pi using a fresh OS.

Once you're done setting up your Raspberry Pi, open the **Terminal** which is located on top of the display right next to the folder icon.



Now, type the following to the **terminal**:

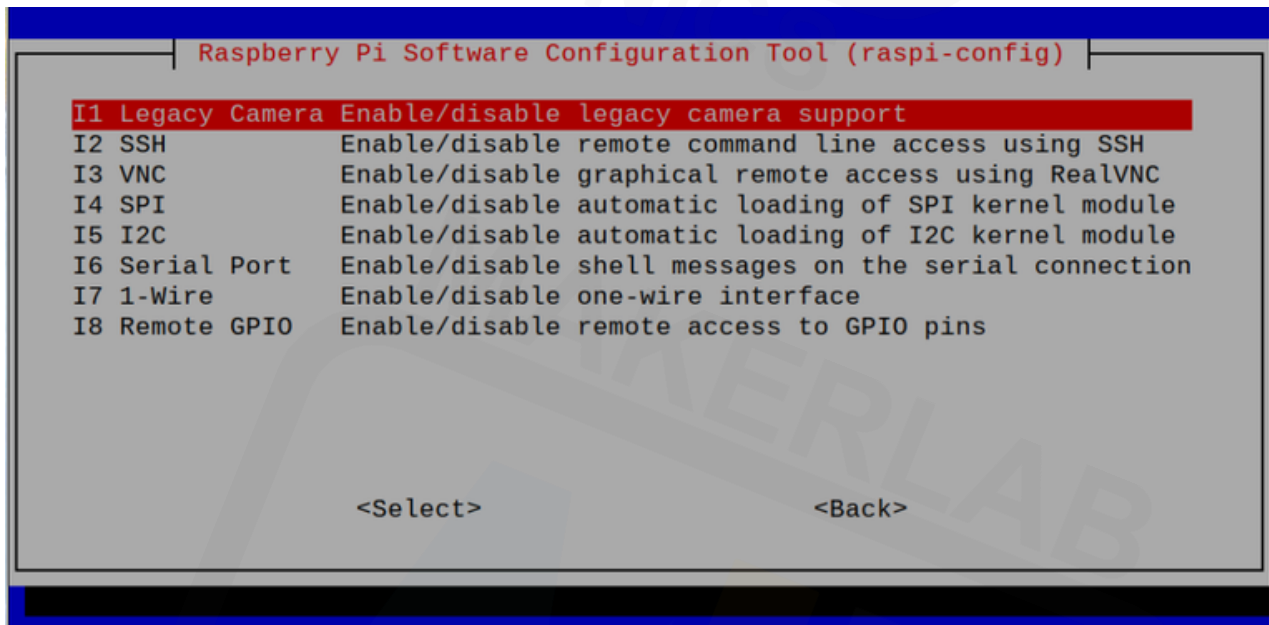
```
sudo raspi-config
```

```
Raspberry Pi 4 Model B Rev 1.2

Raspberry Pi Software Configuration Tool (raspi-config)

1 System Options          Configure system settings
2 Display Options         Configure display settings
3 Interface Options       Configure connections to peripherals
4 Performance Options     Configure performance settings
5 Localisation Options    Configure language and regional settings
6 Advanced Options        Configure advanced settings
8 Update                  Update this tool to the latest version
9 About raspi-config      Information about this configuration tool
```

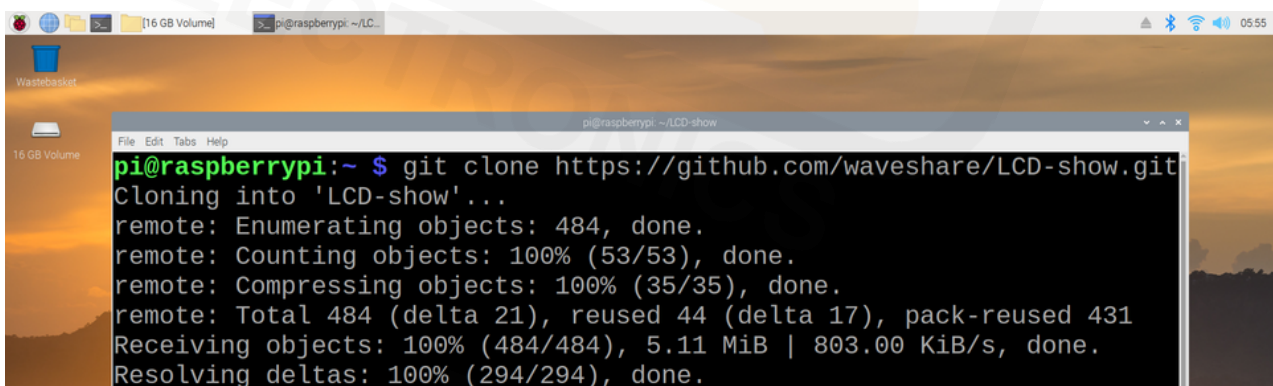

You'll be presented with this menu. In here, select **Interface Options** and select **SPI**.



*Enabling **SPI** ensures that the TFT Display will work on your **Raspberry Pi***

Once you're done, select finish and open the **terminal** again and type the following:

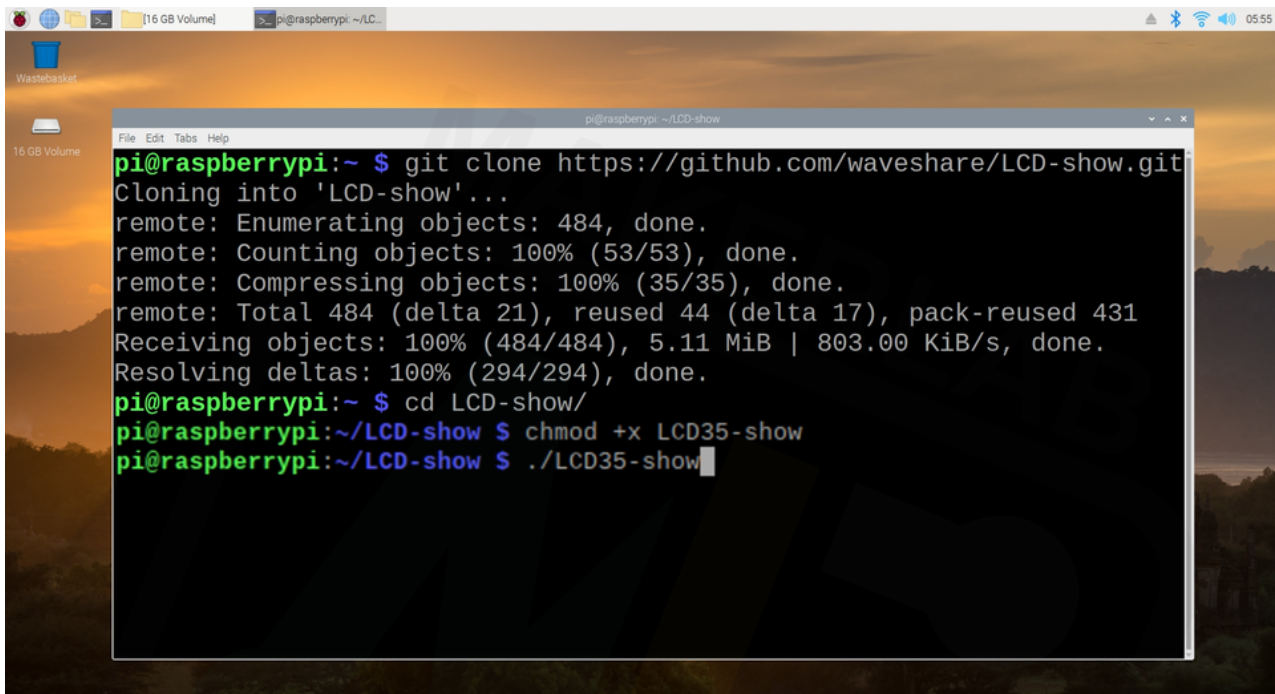
```
git clone https://github.com/waveshare/LCD-show.git
```



This basically allows you to access the repository of the 3.5inch TFT Display you're using enabling you to use it later!

Next, type the following to the **terminal**:

```
cd LCD-show/  
chmod +x LCD35-show  
./LCD35-show
```



After typing the last command, your Raspberry Pi will restart to make the changes take effect. Don't worry! 😊

Once your **Raspberry Pi** boots up, the 3.5" TFT Display should lit up and you're good to go!

