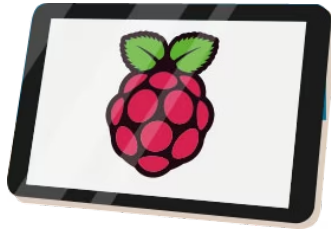


Raspberry Pi 7" Touchscreen Display



Raspberry Pi 7" Touchscreen Display

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element14's first look at the ...



The 7" Touchscreen Monitor for [Raspberry Pi](#) gives users the ability to create all-in-one, integrated projects such as tablets, infotainment systems and embedded projects. The 800 x 480 display connects via an adapter board which handles power and signal conversion. Only two connections to the Pi are required; power from the Pi's GPIO port and a ribbon cable that connects to the DSI port present on all Raspberry Pi's. Touchscreen drivers with support for 10-finger touch and an on-screen keyboard will be integrated into the latest Raspbian OS for full functionality without the need for a physical keyboard or mouse.

*Note: Your NEW Rasp Pi 7.0 needs you to [Add a Virtual Keyboard](#)....



Technical Specification:

- 7" Touchscreen Display
- Screen Dimensions: 194mm x 110mm x 20mm (including standoffs)
- Viewable screen size: 155mm x 86mm
- Screen Resolution 800 x 480 pixels
- 10 finger capacitive touch
- Connects to the Raspberry Pi board using a ribbon cable connected to the DSI port
- Adapter board is used to power the display and convert the parallel signals from the display to the serial (DSI) port on the Raspberry Pi
- Will require the latest version of Raspbian OS to operate correctly

Raspberry Pi
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Features and Benefits

- Turn your Raspberry Pi into a touch screen tablet, infotainment system, or standalone device.
- Truly Interactive - the latest software drivers will support a virtual 'on screen' keyboard, so there is no need to plug in a keyboard and mouse.
- Make your own 'Internet of Things' (IoT) devices including a visual display. Simply connect your Raspberry Pi, develop a Python script to interact with the display, and you're ready to create your own home automation devices with touch screen capability.
- A range of educational software and programs available on the Raspberry Pi will be touch enabled, making learning and programming easier on the Raspberry Pi.

Kit Contents

- 7" Touchscreen Display
- Adapter Board
- DSI Ribbon cable
- 4 x stand-offs and screws (used to mount the adapter board and Raspberry Pi board to the back of the display)
- 4 x jumper wires (used to connect the power from the Adapter Board and the GPIO pins on the Pi so the 2Amp power is shared across both units)

NOTE: THE RASPBERRY PI AND POWER SUPPLY ARE NOT INCLUDED IN THIS KIT AND ARE SOLD SEPARATELY.

Compatible With:

[Raspberry Pi 3 Model](#)

[B](#)

[Raspberry Pi 2 Model](#)

[B](#)

[Raspberry Pi Model](#)

[B+](#)

[Raspberry Pi Model](#)

[A+](#)

The display will technically work with the Model A and Model B boards (connecting it to the DSI port on the Pi board), however the mounting holes on the back of the display will only line up with the newer board design (A+, B+, Pi 2 and Pi 3).

How to Install the Matchbox-Keyboard for your Pi

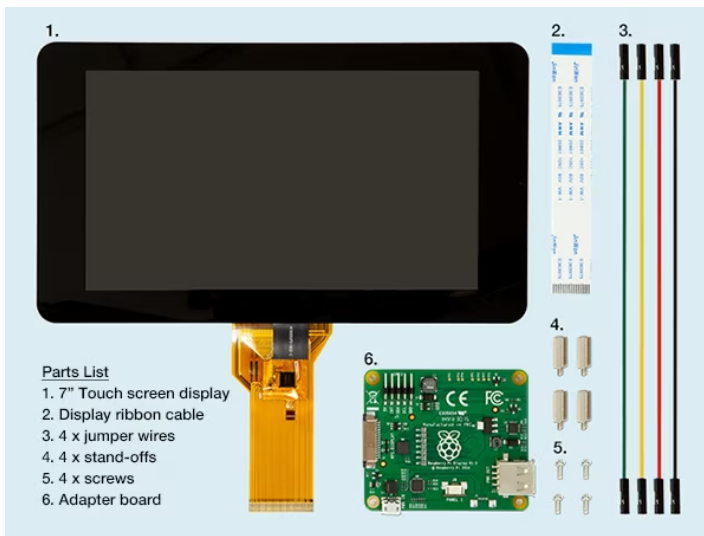


1. Connect a physical keyboard to the Raspberry Pi (or SSH into it if that's your thing.)
2. Connect to the internet via WiFi or Ethernet.
3. Open the terminal.
4. Type **sudo apt-get install matchbox-keyboard**
5. Let the program download & install (takes 30s-1min depending on your connection.)
6. Exit the terminal & reboot your Pi.
7. The keyboard can be found by clicking the Menu -> Accessories -> Keyboard.

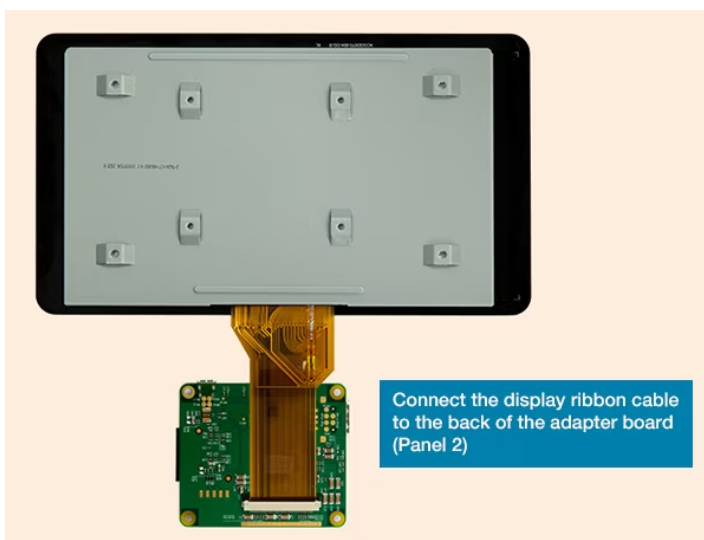
Operating System Support

In order to be sure you're running the latest version of Raspbian, connect your Raspberry Pi to the Internet and then open LX Terminal. Type '**sudo apt-get update**' to download the latest version of the OS. Once that's complete, type '**sudo apt-get upgrade**' to apply the download to your Raspberry Pi. That way you'll have all of the latest drivers and software needed to support the touch screen display.

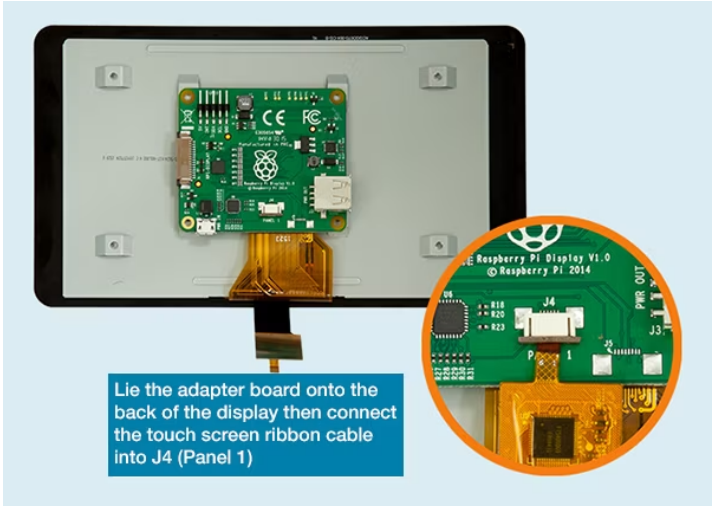
Step 1



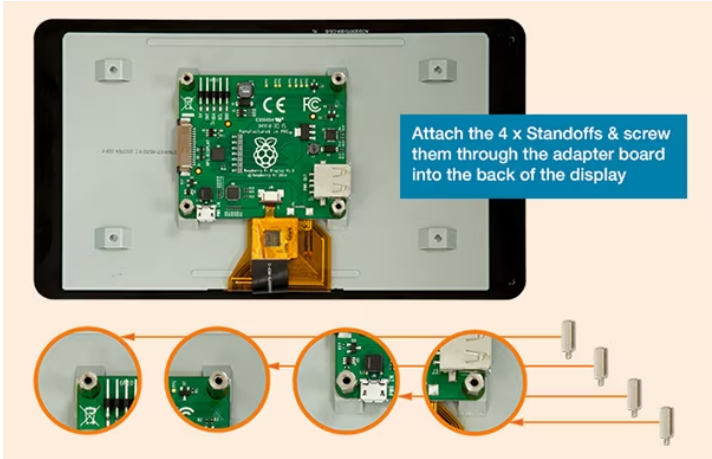
Step 2



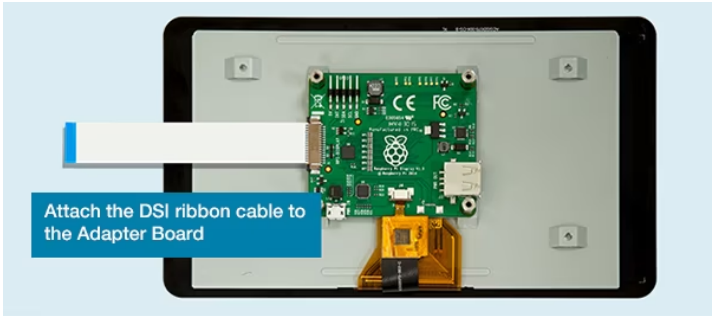
Step 3



Step 4



Step 5

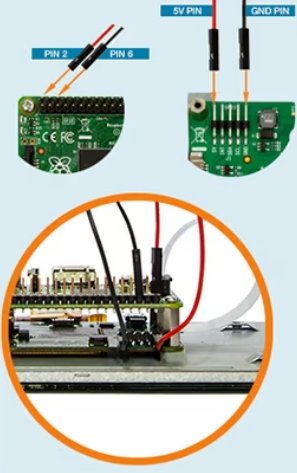


Step 6



Step 7


Connect the jumper wires from the Raspberry Pi to the adapter board



Pin#	NAME	Pin#	NAME
01	3.3v DC Power	02	DC Power 5v
03	GPIO2 (SDA1 - PC)	04	DC Power 5v
05	GPIO3 (SCL1 - PC)	06	Ground
07	GPIO4 (GPIO_GCLK)	08	(TXD0) GPIO14
09	Ground	10	(RXD0) GPIO15
11	GPIO17 (GPIO_GEND)	12	(GPIO_GEN1) GPIO18
13	GPIO27 (GPIO_GEND)	14	Ground
15	GPIO22 (GPIO_GEND)	16	(GPIO_GEN4) GPIO23
17	3.3v DC Power	18	(GPIO_GEN5) GPIO24
19	GPIO10 (SPL_MISO)	20	Ground
21	GPIO9 (SPL_MISO)	22	(GPIO_GEN6) GPIO25
23	GPIO11 (SPL_CLK)	24	(SPL_CE0_N) GPIO8
25	Ground	26	(SPL_CE1_N) GPIO17
27	ID_SD (PC ID EEPROM)	28	(PC ID EEPROM) ID_SC
29	GPIO5	30	Ground
31	GPIO6	32	GPIO12
33	GPIO13	34	Ground
35	GPIO19	36	GPIO16
37	GPIO26	38	GPIO20
39	Ground	40	GPIO21

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Step 8



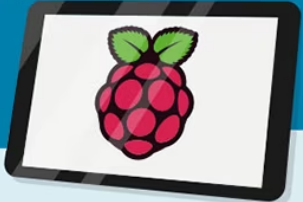
Insert a Micro SD Card into the Raspberry Pi with the Latest version of Raspbian installed then attach a 2Amp Power Supply to the Raspberry Pi Adapter Board to power the display and Raspberry Pi Board.

Alternative methods of powering the Touchscreen Display
Connect a MicroUSB cable from the 'PWR OUT' port on the adapter board to the 'PWR IN' MicroUSB port on the Raspberry Pi board. Then connect a 2Amp external power supply to the 'PWR IN' port on the adapter board
Or
Power both boards independently using separate 2Amp external power suppliers connected to the 'PWR IN' ports on both the Raspberry Pi board and the adapter board

Step 9

Operating Software:
Now that you've assembled your Raspberry Pi Touchscreen Display, you will need to download and install the latest version of the Raspbian Operating System - available to download from the Raspberry Pi Foundation at: <https://www.raspberrypi.org/downloads/>

Once installed, type
`sudo apt-get update`
and
`sudo apt-get upgrade`
(in that order) to install all of the latest drivers and software to support the Touchscreen Display.



pi_guide raspberry pi pi_display raspberry_pi matchbox_keyboard display touchscreen 7" guide installation
7 inches

Top Comments

478 comments 0 members are here

- shabaz** over 6 years ago in reply to **idometeor** +3
Jason Does Meteor wrote: As mentioned, I tried that. Actually you didn't, you stated: I have tried everything and I cannot get the display to rotate in Raspbian. I have written many X configuration files...
- softweyr** over 8 years ago in reply to **ejohnfel** +2
Yeah, this is not a bad price for a 7" display, plus you get the touchscreen, integrated keyboard, etc. And tomorrow is my birthday!
- bwelsby** over 8 years ago in reply to **phantomski** +2
The reduced screen size is because Overscan settings are enabled, you can either comment out the settings in /boot/config.txt or just run raspi-config and select the advanced options then Overscan, Disable...
- mishmash19** over 8 years ago
I got it to work, finally. Well, maybe all it took is perseverance. After reloading Jessie and taking everything apart and reattaching it all again, it works. Power is 2 amp mini usb to the Raspberry Pi, with jumper wires to the display board.



[gam3t3ch](#) over 5 years ago

I think [danzima](#) is trying to make me buy more pi.



[danzima](#) over 5 years ago in reply to [gam3t3ch](#)

Hahaha, just doing some (digital) housecleaning!



[gam3t3ch](#) over 5 years ago in reply to [danzima](#)

I'm not sure I believe you, 😊 But keep up the good work!



[DAB](#) over 8 years ago

I like it.

I will have to try one when I get some free time.

DAB



[Former Member](#) over 8 years ago

Richard,

You are a lifesaver. Thank you!!!! Works like a charm.



[Former Member](#) over 8 years ago

Hey Guys,

A pointer would be good. I have got the display working, the touch screen also works "like a mouse" but it does not seem to throw an onscreen keyboard when I am in a text box. What do I need to do to get the keyboard? Have followed all the above howto.

Cheers muchley

Ben



[Former Member](#) over 8 years ago in reply to [Former Member](#)

Hi,

Answered my own question with match box and then manually launching from accessories menu. But annoyingly it does not know to popup when entering a text field, and I have to click once for focus and again for the letter. Although this is clearly not a screen related issue. Is there a way to get the applicaton to throw the keyboard to screen, I am suspecting not thinking about event handlers....

Ben



[Former Member](#) over 8 years ago

My first try...



Any things to do but I missing additional technical information. No RISC OS lobby here 🐼



[jack.chaney56](#) over 8 years ago

Solves soooooo many issues with portability. Thanks everyone on the development team.



[lynguthre@aol.com](#) over 8 years ago

I am still having trouble. I have followed the procedures above and have swapped and rotated the cables linking the adapter to the RPi. Everything seems fine except the display is dead. I measured the voltage going into the RPi with input to the adapter and it measures 5.1 volts. the lights on the RPi seem normal. I tried a second memory loaded with NOOBS (which I checked out with the RPi, independent of the adapter/display) and got same results. The other flat cables connecting the adapter to the display seem normal, no apparent damage. At this point I don't feel pictures would do much good, especially with all of the good documentations that you have provided. I still want and need the display, so I would appreciate any suggestions that you might have.

Lynnng



[balearicdynamics](#) over 8 years ago in reply to [lynguthre@aol.com](#)

Just a question, Lynn, did you checked the very first two connectors that should be plugged in the board before wiring it on the back of the LCD ?

Sorry if I bore you but it is just to avoid any possible issue.

Enrico



[dhunjoshi](#) over 8 years ago

Hello

I got blank screen on 7" display when power up raspberry pi2.

i have upgrade the raspberry pi

kindly help



[amk182](#) over 8 years ago in reply to [dhunjoshi](#)

if I may suggest, if you have a multi-meter use it to check the power and voltage output to the screen because it may not working properly do to under-voltage or over-load

list to check

amp input

volt input

amp output

volt output

because I've found some screen's have a bad voltage and amp handling. Some time the board to the display just is bad even on new display.



Former Member *over 8 years ago*

Similar to Lynn Guthrie, I have done everthing but still display is just black. I am fighting last 4 days 😞...



Former Member *over 8 years ago in reply to Former Member*

Did You try reverting the ribbon cable? In my case it fixed the problem.

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