Raspberry Pi 7" Touch Screen Assembly Guide

Before we assemble the touch screen, we need to make sure that our Raspberry Pi has the latest version of Raspberry Pi OS, and that all the software is up to date.

Hook up your Pi to a monitor, plug in your keyboard and mouse and boot your Pi into Raspberry Pi OS. Once booted up, open a new Terminal window and type the following commands, hitting enter after each one:

```
sudo apt-get update sudo
apt full-upgrade
```

After we have updated the Pi, safely shut it down, unplug everything and put it to one side.

Building the touch screen

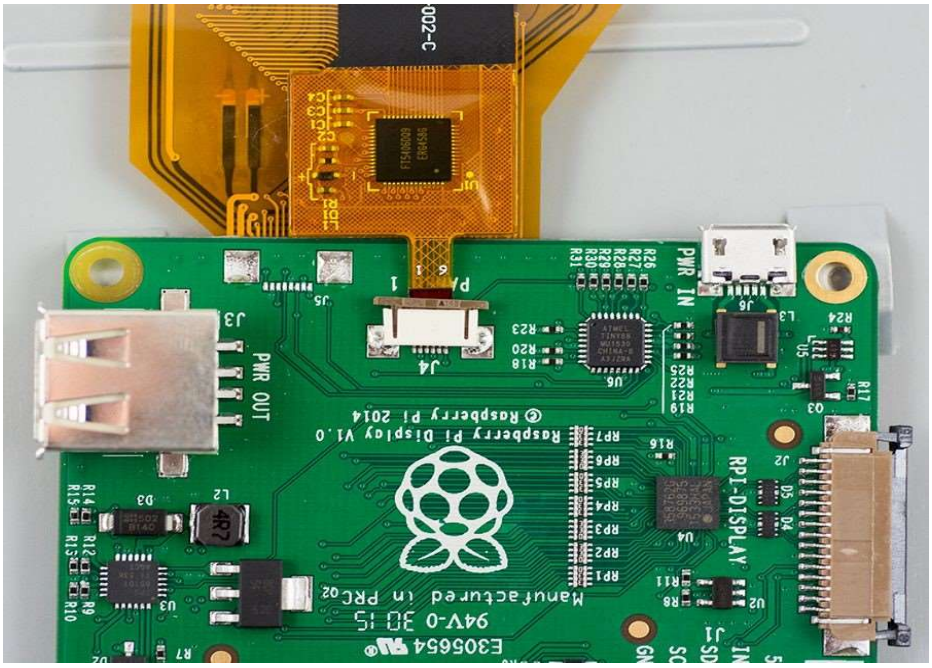
As we will be working on the back of the screen, and the screen will be facing a table, we recommend you leave the protective film on until assembly is complete. It's also wise to place the screen on something soft and clean like a microfibre cloth.

Here is everything that you should have, out of the box:

Start by connecting the large ribbon cable from the screen to the connector on the underside of the controller board. You will need to carefully undo the clamp before inserting the cable. Make sure to press the clamp in to secure the ribbon in place.

Note: this is sometimes already connected depending on our current supplier.

Now turn the controller board over, and connect the small ribbon cable from the screen to the board. Same principle as above, undo the clamp, insert cable, press clamp closed to secure ribbon in place.

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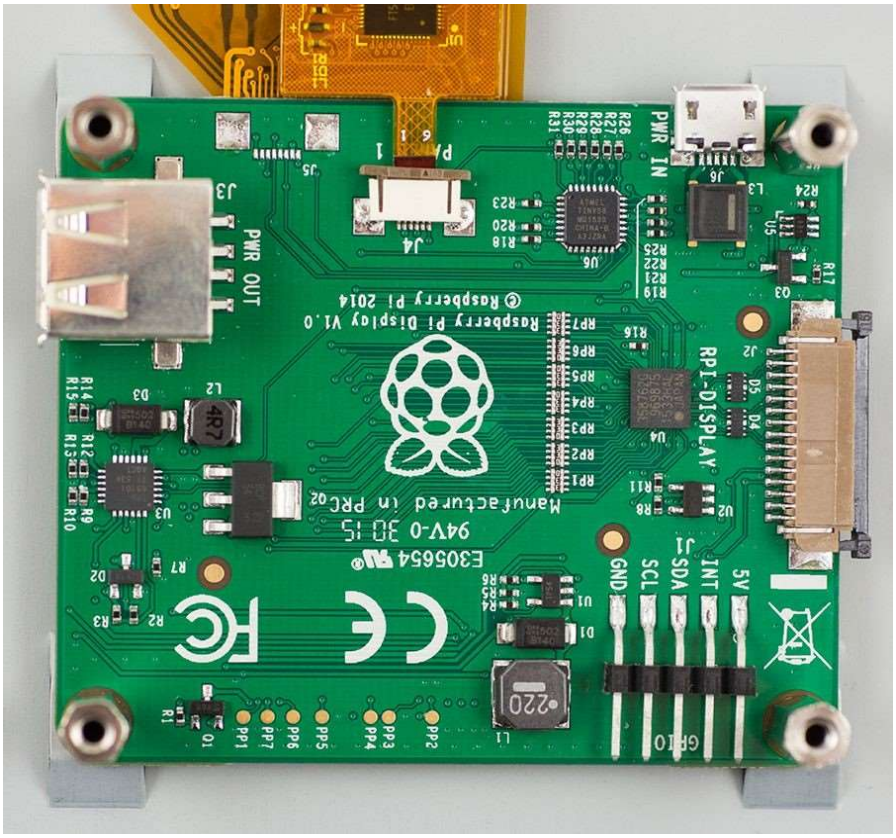
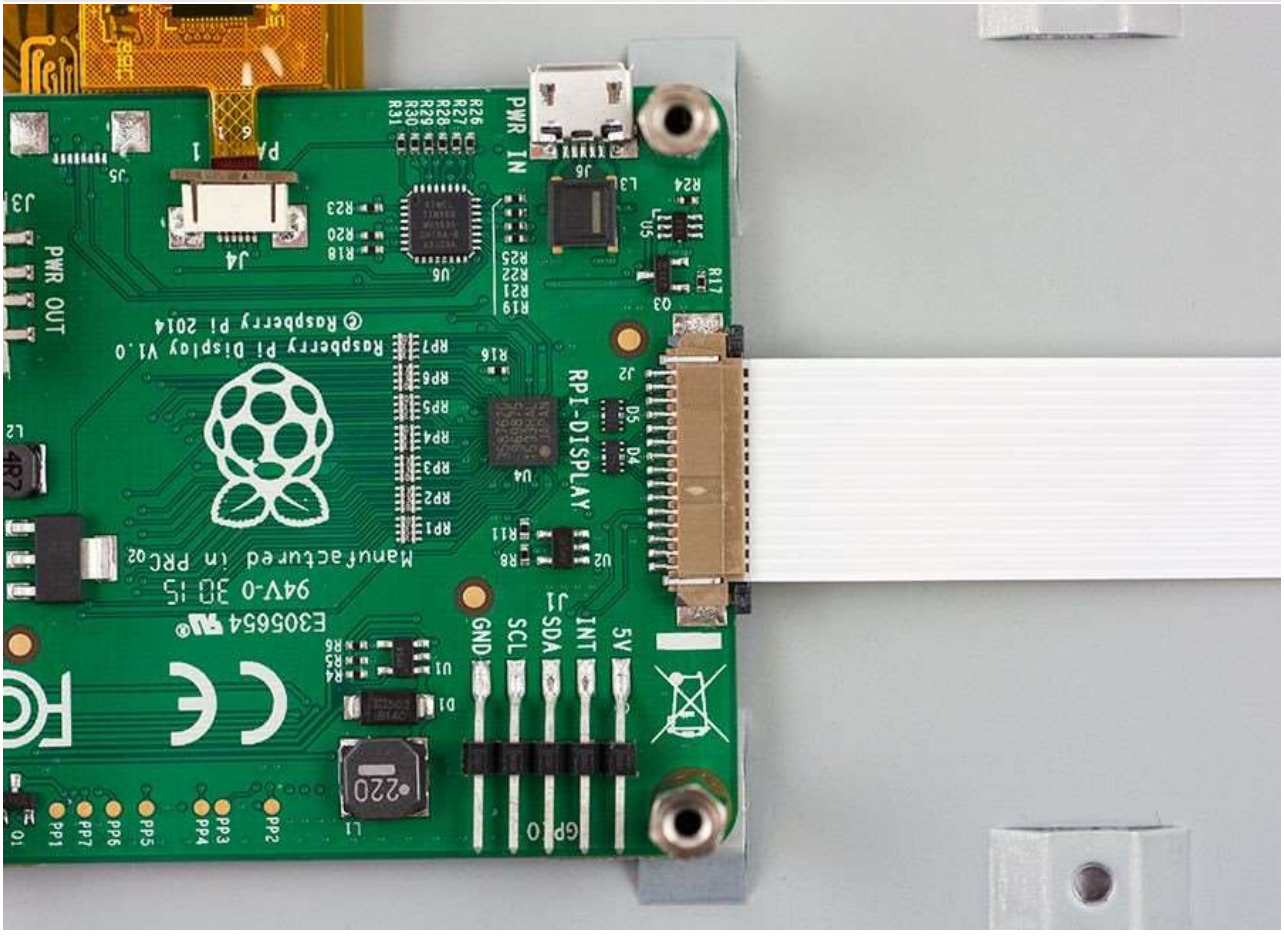
Using the 4 standoffs provided, secure the controller board to the screen



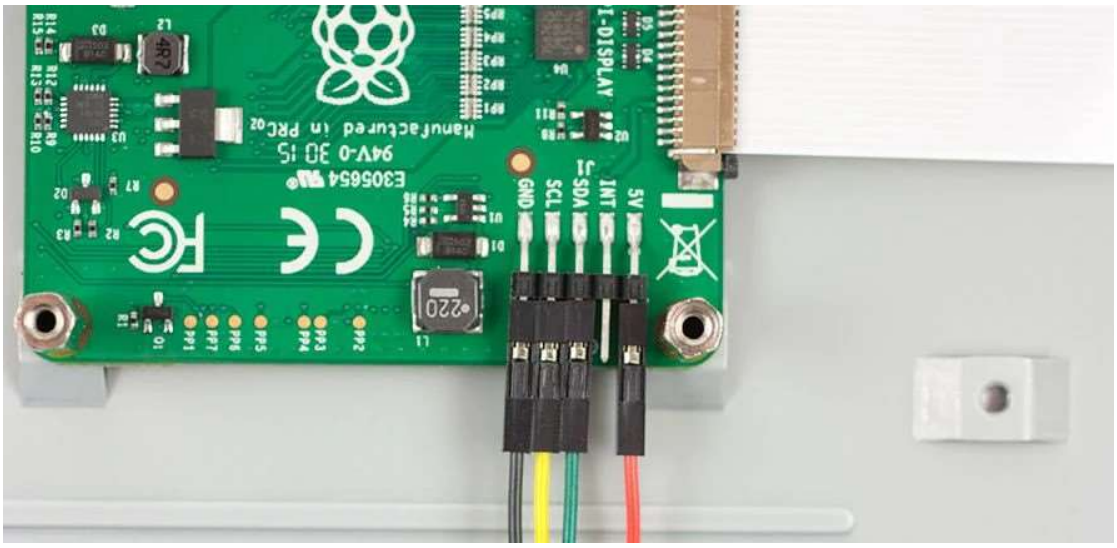
Using the white ribbon cable supplied, connect one end to the controller board, **making sure that this end has the blue tab facing down**, towards the board (the opposite end, the end not being attached to the controller board, should have the blue tab facing up, so you can see it):



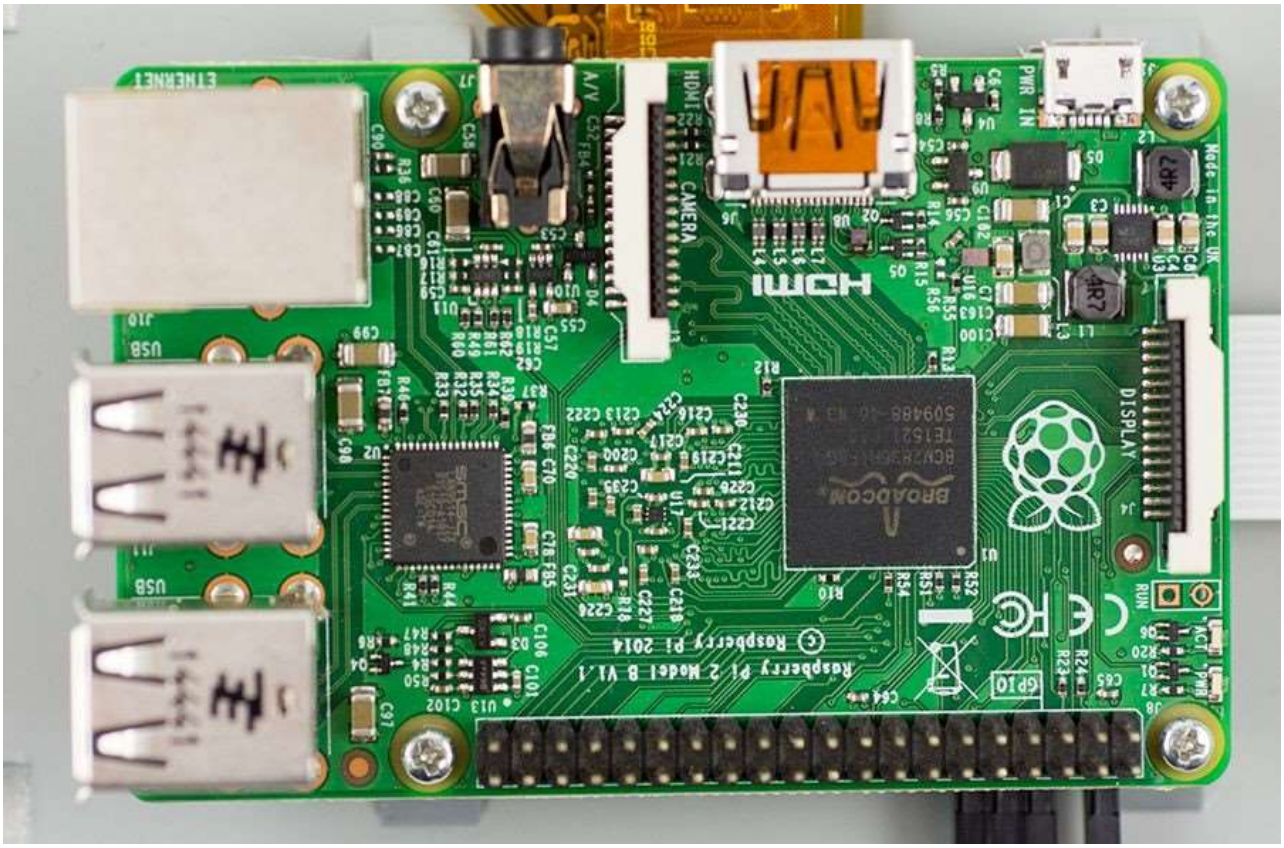
Now connect **only the Red and Black jumper wires**, that were supplied to the controller board.

- Red – 5V
- Black – GND

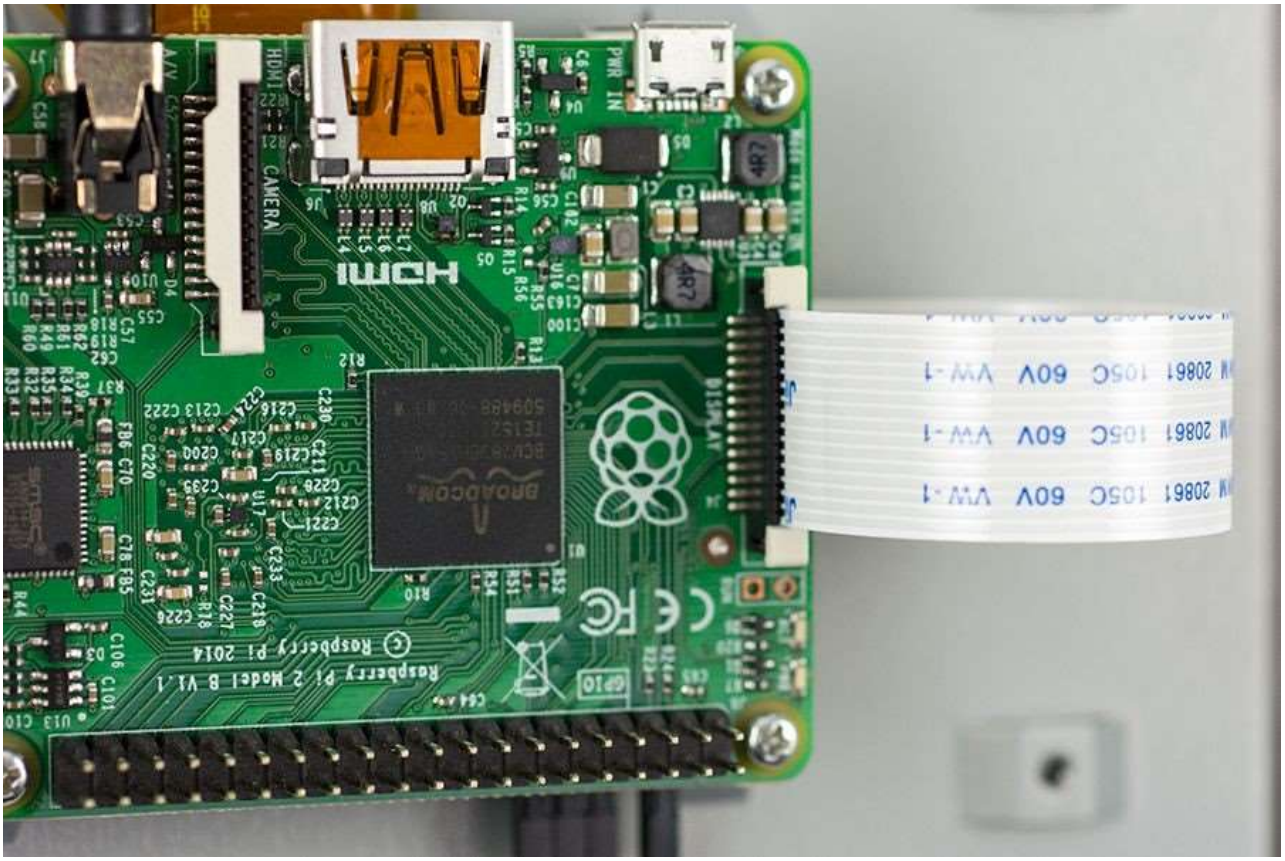
You will see green and yellow wires in the images below - **these are no longer required.**



Mount the Raspberry Pi on top of the 4 standoffs:



Connect the white ribbon to the Raspberry Pi's Display port

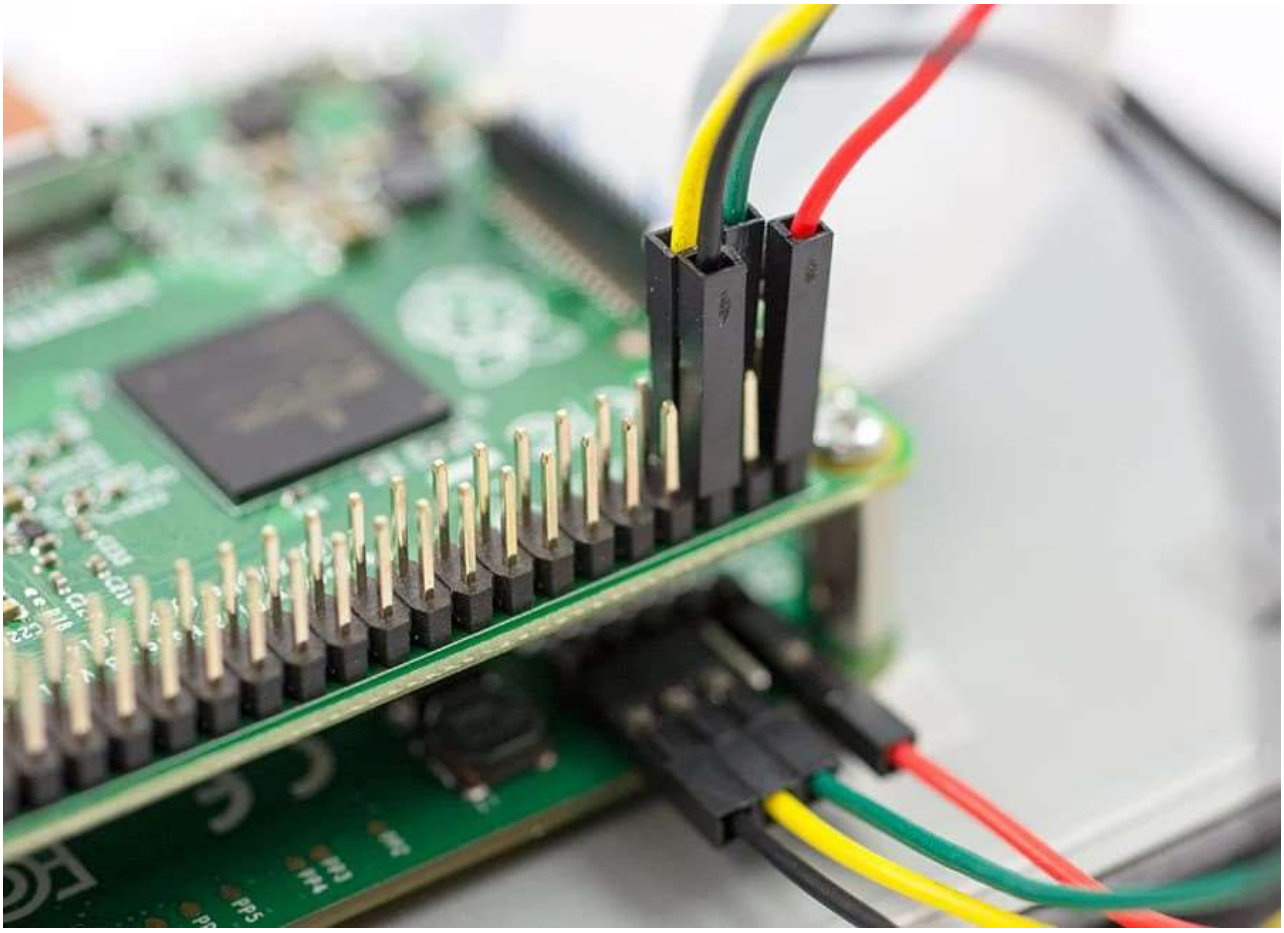


Now connect the jumper wires to the Pi. Again, **only the black and red wires are required**.

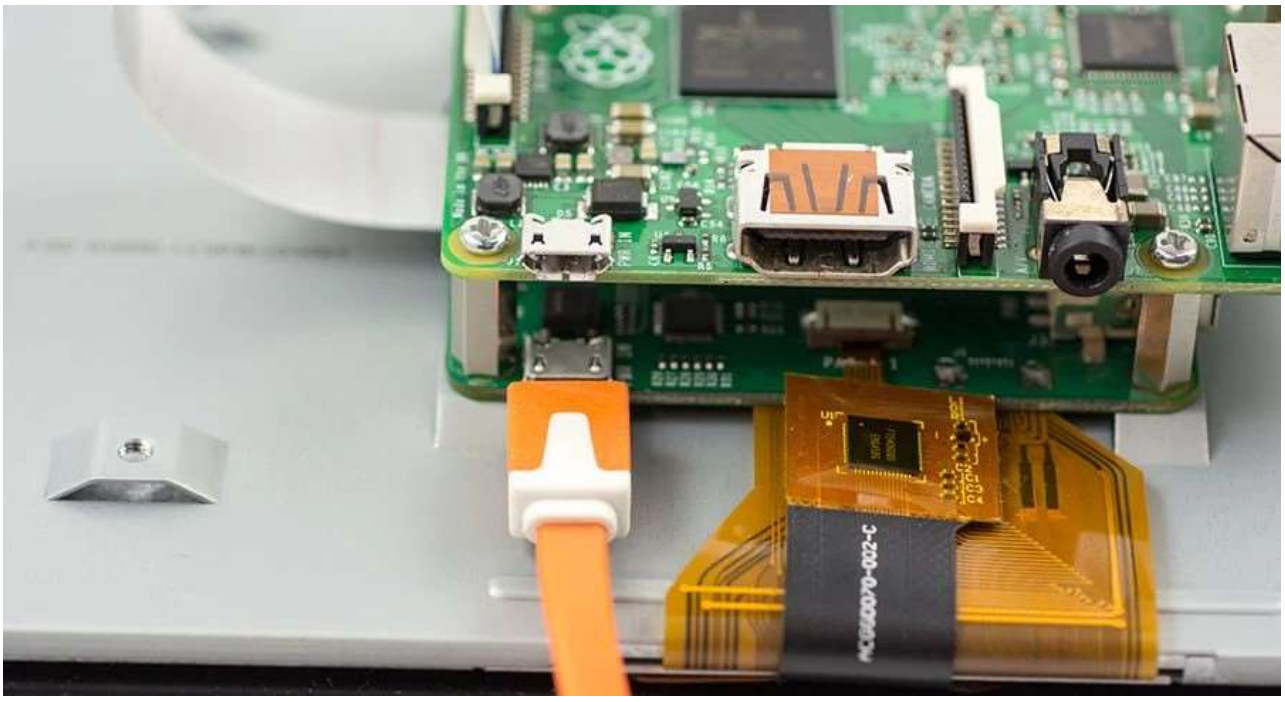
- Red – Pin 2
- Black – Pin 6

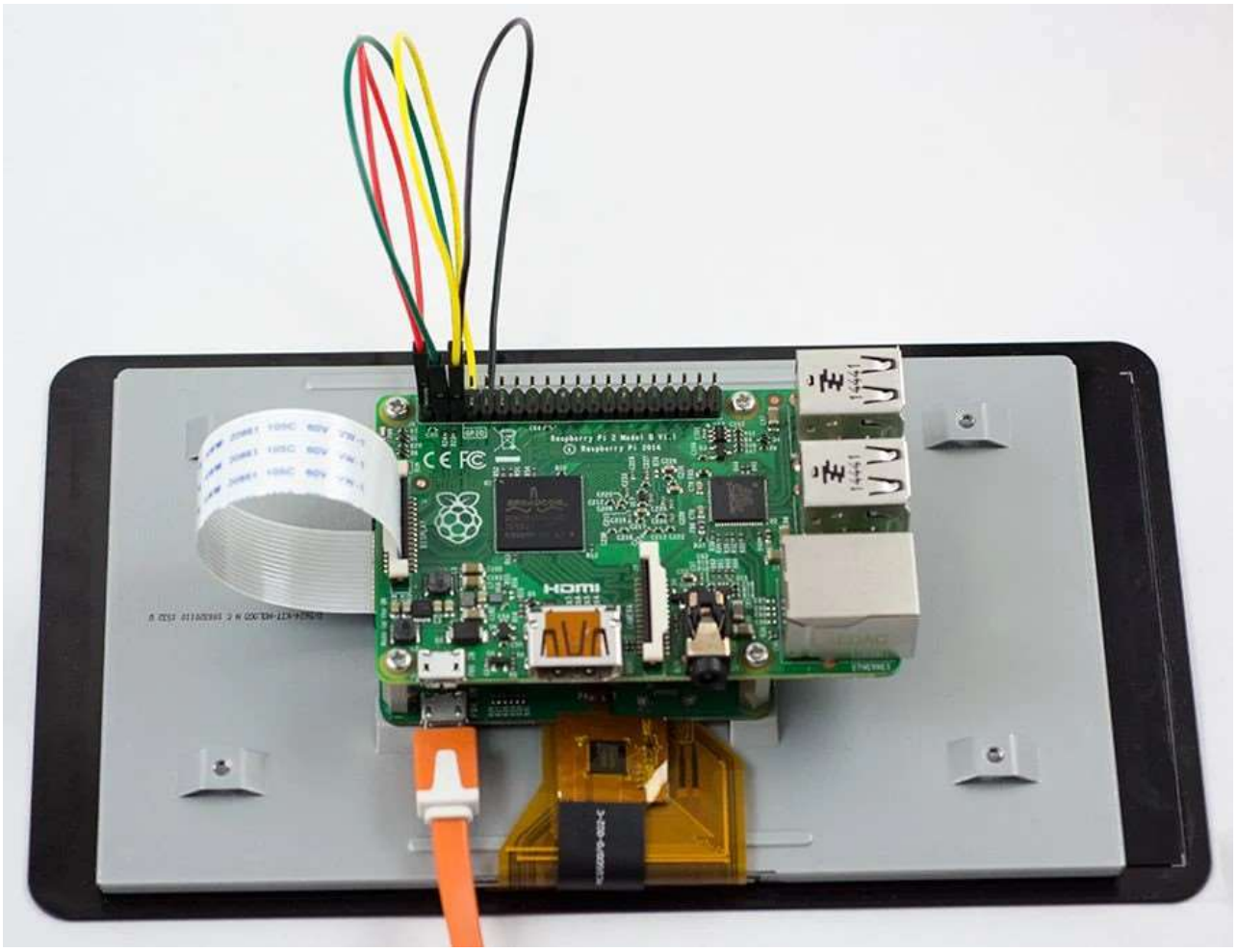
Raspberry Pi 3 GPIO Header

Pin#	NAME		NAME	Pin#
01	3.3v DC Power		DC Power 5v	02
03	GPIO02 (SDA1 , I²C)		DC Power 5v	04
05	GPIO03 (SCL1 , I²C)		Ground	06
07	GPIO04 (GPIO_GCLK)		(TXD0) GPIO14	08
09	Ground		(RXD0) GPIO15	10
11	GPIO17 (GPIO_GEN0)		(GPIO_GEN1) GPIO18	12
13	GPIO27 (GPIO_GEN2)		Ground	14
15	GPIO22 (GPIO_GEN3)		(GPIO_GEN4) GPIO23	16
17	3.3v DC Power		(GPIO_GEN5) GPIO24	18
19	GPIO10 (SPI_MOSI)		Ground	20
21	GPIO09 (SPI_MISO)		(GPIO_GEN6) GPIO25	22
23	GPIO11 (SPI_CLK)		(SPI_CE0_N) GPIO08	24
25	Ground		(SPI_CE1_N) GPIO07	26
27	ID_SD (I²C ID EEPROM)		(I²C ID EEPROM) ID_SC	28
29	GPIO05		Ground	30
31	GPIO06		GPIO12	32
33	GPIO13		Ground	34
35	GPIO19		GPIO16	36
37	GPIO26		GPIO20	38
39	Ground		GPIO21	40



Now it’s time to power it all. Plug an official Raspberry Pi power supply into the controller board (the controller board will power your Pi via the jumper wires) and away you go!).




HDMI