

# Raspberry Pi Screen handleiding

# Connecting the display

The display module integrates the LCD display with a conversion board that should be plugged into the Raspberry Pi through the display connector. Be aware that the connector is the same as the camera connector, but the two are not compatible, so be careful to correctly identify the display connector first.



The 15-way FPC connector should already be plugged into the display conversion board with the silvered contacts face-up. You can then plug the connector into the Raspberry Pi with the silvered connectors inboard (facing towards the USB connectors).



# Powering the display

There are three options for powering the display:

1) Separate power supply

Just add a separate uUSB power supply rated for at least 500mA, and plug into the display board where it says "PWR IN".



# 2) USB link

Attach an official 2A Raspberry Pi power supply to the display board "PWR IN" connector, then attach a standard uUSB connector from the "PWR OUT" connector to the Raspberry Pi.



3) GPIO jumpers

Attach two of the supplied jumpers to connect 5V and GND from the Pi.

#### Using the display

To use the display the user just needs to do the following:

```
$ sudo apt-get update
$ sudo apt-get upgrade
$ sudo reboot
```

The Raspberry Pi will now automatically detect the display and use it as the default display (rather than HDMI), although HDMI will still be initialised. If you'd prefer for the HDMI display to stay as default then add:

display\_default\_lcd=0

to the config.txt file.

### Dual display usage

It is possible to use both display outputs at the same time, but it does require software to choose the right display. Omxplayer is one application that has been modified to enable secondary display output.

To start displaying a video onto the LCD display (assuming it is the default display) just type:

# omxplayer video.mkv

To start a second video onto the HDMI then:

# omxplayer --display=5 video.mkv

Please note, you may need to increase the amount of memory allocated to the GPU to 128MB if the videos are 1080P, adjust the gpu\_mem value in config.txt for this. The Raspberry Pi headline figures are 1080P30 decode, so if you are using two 1080P clips it may not play correctly depending on the complexity of the videos.

## Display numbers are:

```
DISPMANX_ID_FORCE_LCD 4
DISPMANX_ID_FORCE_TV 5
DISPMANX_ID_FORCE_OTHER 6 /* non-default display */
```

## Touchscreen

The Raspberry Pi display has an integrated 10-point touchscreen (a bit of an overkill, but it does seem to work well). The driver for this touchscreen outputs both standard mouse events and full multi-touch events, and therefore can work with X as a mouse (although not brilliantly – X was never designed to work with a touchscreen!).

