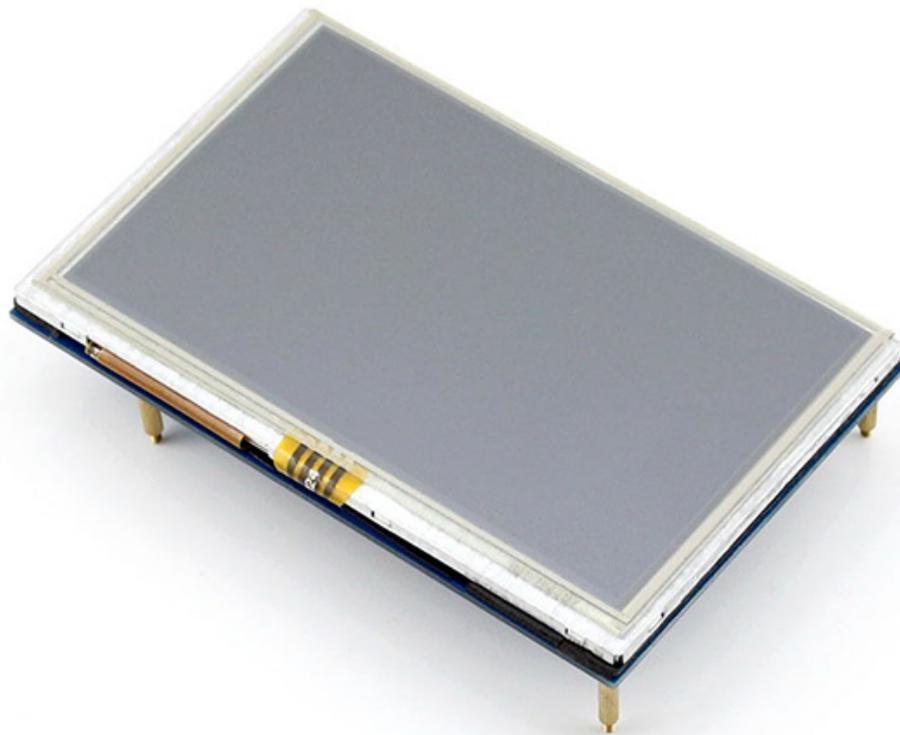


# 5inch-HDMI-LCD-APP

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## Features

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- 1.800×480 high resolution, touch control
- 2.Directly-pluggable into any revision of Raspberry Pi (only except the first generation Pi model B which requires an HDMI cable)
- 3.Driver provided (works with custom Raspbian directly)
- 4.HDMI interface for displaying, no I/Os required (however, the touch panel still needs I/Os)
- 5.Back light control to lower power consumption
- 6.High quality immersion gold surface plating

## Use with Raspberry Pi

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## Programming the image file

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When users connect the Raspberry Pi to use, they need to configure the official system. Or you can also burn the configured system image directly. In order to facilitate the explanation of burning steps, this section will burn the configured the system image directly.

1. Copy the .img file under IMAGE catalogue to the computer.
2. Connect the TF card to computer and apply the SDFormatter.exe software, then formatter the TF card.  
Note: the capacity should not lower than 4 GB. At this operation, a SD of TF card will be used and user need to buy one.
3. Open the Win32DiskImager.exe software, choose the system image prepared and click「write」to burn the system file.

## Hardware connection

1. Connect to GPIO
  - 1.1 Connect Raspberry Pi Model A+. Raspberry Pi Model A+ has 40 GPIO pins and screen has 26 pins, pay attention to the screen pins should be corresponding to the Raspberry Pi pins when connecting.
  - 1.2 Connect the Raspberry Pi Model B+/Raspberry Pi 2 Model B. Raspberry Pi Model B+/Raspberry Pi 2 Model B has 40 GPIO pins and screen has 26 pins. The screen pins should be corresponding to the Raspberry Pi pins when connecting.
2. Connect the HDMI. Connect the HDMI connector into the HDMI of screen and main board.

## Configure Raspbian Image

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Users can apply the configured image directly: /IMAGE/5inch\_HDMI\_Raspbian .img. Operations as the section showed. Please keep reading if need to configure the image all by yourself.

## Configure Display Parameter

1. Entry the terminal of system. The easier way is to connect the keyboard and the computer HDMI display. Entry the Graphical Environment of system to operate it directly. If haven't a display or a keyboard, users can operate the Raspberry Pi via the LAN or UART.
2. Modify the /boot/config.txt and execute: sudonano/boot/config.txt.

Modification as follows:

```
# uncomment if hdmi display is not detected and composite is being output
hdmi_force_hotplug=1

# uncomment to force a specific HDMI mode (here we are forcing 800x480!)
hdmi_group=2
hdmi_mode=1
hdmi_mode=87
hdmi_cvt800480606000

start_file=start_x.elf
fixup_file=fixup_x.elf
#gpu_mem=128
```

## Configure Touch Parameter

1. Copy the \software\5inch\_HDMI\_LCD.tar.gz to any place of Raspberry Pi system(via the Internet and USB disk), execute the following operation:

```
pi@raspberrypi ~ $ tar xvf 5inch_HDMI_LCD.tar.gz
pi@raspberrypi ~ $ cd 5inch_HDMI_LCD/
pi@raspberrypi ~ $ sudo ./5inch_HDMI_LCD
```

2. It can be used after rebooting.

## Interface

PIN NO.	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, 11, 12, 13, 15, 16, 18, 24	NC	NC
6, 9, 14, 20, 25	GND	Ground
19	TP_SI	SPI data input of Touch Panel
21	TP_SO	SPI data output of Touch Panel
22	TP_IRQ	Touch Panel interrupt, low level while the Touch Panel detects touching
23	TP_SCK	SPI clock of Touch Panel
26	TP_CS	Touch Panel chip selection, low active