The Adafruit HDMI Display Monitor ÜBERGUIDE

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https://learn.adafruit.com/hdmi-uberguide

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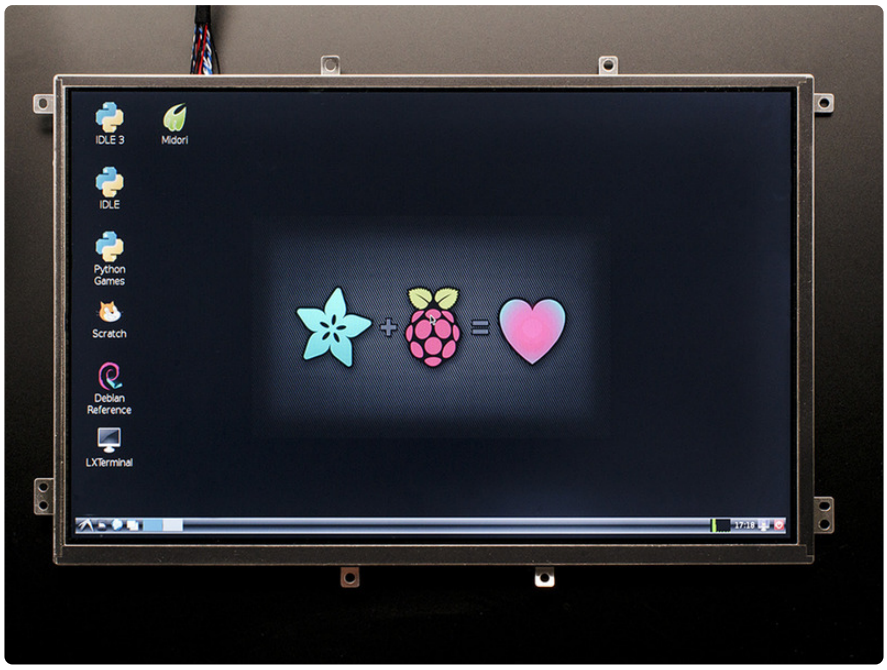
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Overview



At the Adafruit store, we've added a ton of great new HDMI-compatible displays for your Raspberry Pi or anything else with HDMI/VGA/Composite video output. But, like we said, we've added a **ton** and so it can be a little overwhelming trying to find the perfect display for your project.

Don't fret! There's now an **ÜBERGUIDE** to Adafruit's LCDs & Displays (https://adafru.it/eul) category.

There's a lot and we'll go through each PID with details about what you get with each screen, but here's some basic guidelines:

- There's two essential elements to each display: **resolution** and **size**
- If the size is the same between two displays, say 7" diagonal - you'll pay more for **higher resolution**
- If the resolution is the same between two displays, say 1280x800 pixels - you'll tend to pay more for **smaller size** (since the pixel density increases, which is harder to manufacture)
- You'll pay more for more inputs - a VGA/NTSC/PAL/HDMI driver costs more than just an HDMI driver.
- Some displays can be paired with an **HDMI+Audio** driver. This lets you have both video and audio over one cable, but adds a little cost.
- **IPS** (In-Plane-Switching) looks amazing, and gives the screens a great look and wide viewing angle, but adds some cost.

All our screens have been tested with a Windows desktop computer (we run Win7 but it should not matter which version). You can also use these displays with a Mac and even a console like an XBox (you'll want the higher resolution displays for this, 1280x800 is best).

The displays have also been tested with a Raspberry Pi (Raspbian) and Beagle Bone Black. For Raspberry Pi, you'll get the best performance with a customized **/boot/config.txt** You can edit this file by sticking the SD card into any computer and editing config.txt with a text editor

We've tried to find a match that fits every need and budget but will keep on adding more as the demand arises. There's also an FAQ page for questions that have come up and some more info on how to set up your driver board.

To ze **ÜBERGUIDE!**

Troubleshooting & Frequently Asked Questions

Do the displays have 'snow' or a lighter-image if the signal weakens?

Nope! All of our displays have pure-digital input decoders. They're not suitable for FPV displays where you want the display to go fuzzy instead of cut out.

If you power cycle the display does it turn back automatically or does it need to be switched on each time via the power button?

All of the displays auto-turn on when power is applied. It goes to whatever was last selected so you have to set it up once then every time its power cycled it will come up automatically.

How come I hear a ticking noise when I shake my display?

Please note that there might be a 'rattle' when shaking this display, due a small piece of non-conductive plastic that gets pushed into the enclosure during assembly. It's not harmful to the display or affect performance

---

Which displays are good for use with older arcade/ computing devices with 4:3 ratio?

The RTD2660H based drivers have a 4:3 ratio mode that will squish the display down to 4:3, which some people with older devices seem to need! We have not actually tested it but have heard reports it works well

The RTD2668 based drivers (HDMI+Audio) say they have a 4:3 mode but when you try to switch it over, nothing happens to the display so we don't think it really works!

What happens if I can't output the native resolution from my device?

The HDMI drivers all have an 'EDID' that tells the computer/HDMI host what resolution it prefers (the native resolution)

You may need to manually set this resolution on some computers, the Raspberry Pi for example does best if you 'force' it using the config.txt which is included on the page for each display

You can send a higher or lower resolution image and the HDMI driver will automatically scale it down or up. **However** it wont look as good because of the scaling! For the best look, especially crisp text, use the native rez!

How do I set the resolution in the monitor/display?

You can't! Resolution for HDMI/VGA/Composite is always set by the video emitter. If the resolution isn't right on the monitor, go to your computer/console system prefs!

Eeek I set the RTD2660H-based driver into a bad mode and now I can't see anything!

First, make sure it is powered and connect HDMI to your computer, make sure you see the LED is green which means it is getting good HDMI signal! press S5 and wait 5 seconds after pressing, to switch from HDMI to VGA to AV1 to AV2 and back to HDMI

then press these buttons, wait about 1 second between presses!

S2 S3 S3 S2 S2 S3 S2

where S1 is the switch closest to the green LED, S5 is the farthest from the green LED

You can also try

- Power
- Menu
- +
- +
- Menu
- Menu
- -
- Menu

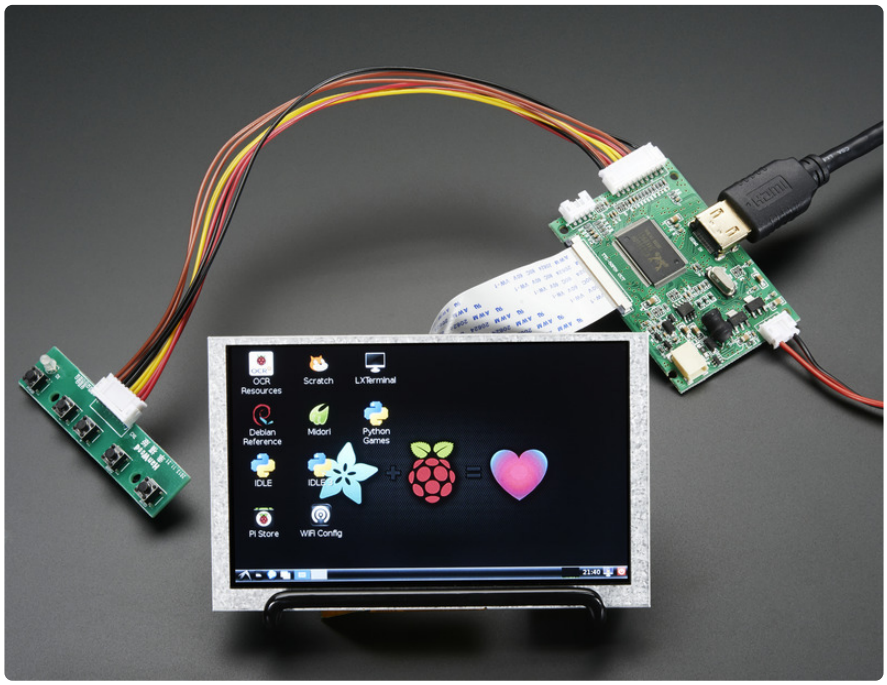
I'm getting vertical line(s) when the display is connected to a Raspberry Pi.

Use **raspi-config** to force audio out the 3.5mm audio jack (rather than HDMI or auto).

If you still have issues, edit **/boot/config.txt** and add or un-comment this line:

hdmi_drive=2

1928 - 5" Display w/Mini Driver - 800x480



This is our smallest HDMI-compatible displays, works great and is very small! We also have this display with a VGA/NTSC/PAL/HDMI driver (#1678)

You can power it from a USB port, which is rather nice for portable setups!

Since the display is not in a case, you may want a wire monitor stand. It's a simple way to prop up the screen! (http://adafru.it/1679)

Powering from USB

You *can* power this from the USB port of a Raspberry Pi Model B+ or A+ if you turn on high current USB capability

To let the Pi A+/B+ drive a display power over USB, first make sure you have a 2A power supply, with a good quality USB cable, a thin wire power cable is no good. Make sure its 24AWG or smaller, shorter USB cables are better too. Then add

```
max_usb_current=1
```

to **/boot/config.txt**

If you're getting wierd reboots, its likely the power supply and/or power USB cable is not good enough. A powered hub will also solve this problem

Specifications:

Resolution: 800x480 Native
Screen Size (diagonal): 5"
Audio Support? (Y/N): N
IPS? (Y/N): N
Inputs: HDMI
Touchscreen? (Y/N): N
Power: 5V @ 500mA

For display dimensions, exact size, resolution, dot pitch, contrast, etc check out the datasheet for the TFT itself! (https://adafru.it/dWZ)

Click here to see the driver board's datasheet! (https://adafru.it/dTQ)

Click here for more information on the mini driver board! (https://adafru.it/Cdm)

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
#disable_overscan=1

# uncomment the following to adjust overscan. Use positive numbers if console
# goes off screen, and negative if there is too much border
#overscan_left=16
#overscan_right=16
#overscan_top=16
#overscan_bottom=16

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=720

# 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_cvt=800 480 60 6 0 0 0

# uncomment to force a HDMI mode rather than DVI. This can make audio work in
# DMT (computer monitor) modes
#hdmi_drive=2

# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

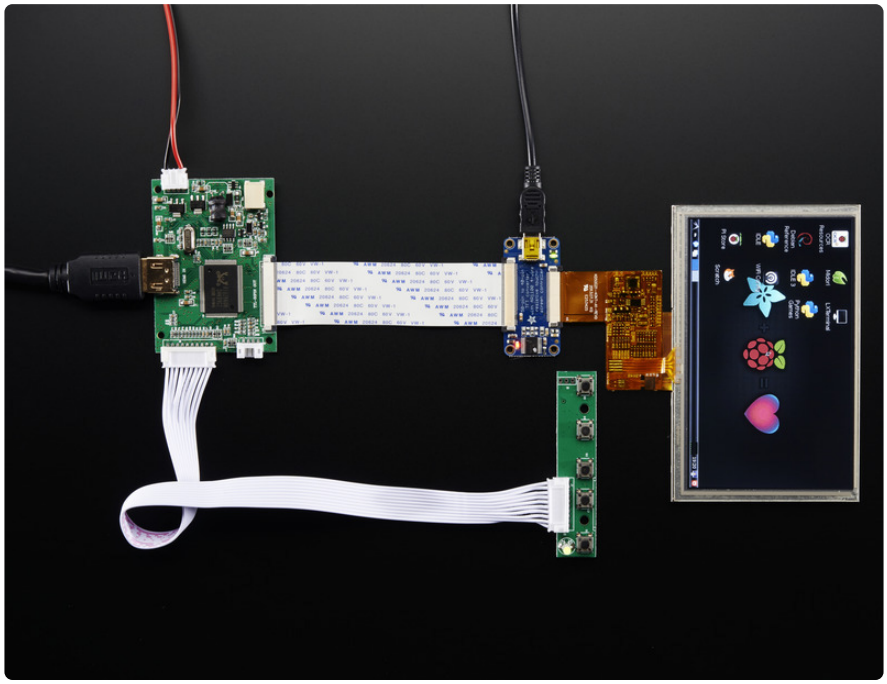
# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt

max_usb_current=1
```

2109 - 5" Touch Display w/Mini Driver - 800x480



This is our smallest HDMI-compatible displays, works great and is very small! We also have this display with a VGA/NTSC/PAL/HDMI driver (#2110).

This is the touchscreen version of the display!

You can power it from a USB port, which is rather nice for portable setups!

Since the display is not in a case, you may want a wire monitor stand. It's a simple way to prop up the screen! (http://adafru.it/1679)

Powering from USB

You *can* power this from the USB port of a Raspberry Pi Model B+ or A+ if you turn on high current USB capability

To let the Pi A+/B+ drive a display power over USB, first make sure you have a 2A power supply, with a good quality USB cable, a thin wire power cable is no good. Make sure its 24AWG or smaller, shorter USB cables are better too. Then add

```
max_usb_current=1
```

to **/boot/config.txt**

If you're getting wierd reboots, its likely the power supply and/or power USB cable is not good enough. A powered hub will also solve this problem

There are TWO USB plugs required for this display, one is for power (no data, for the HDMI decoder only) and one is for touch (power/data for touch controller)

Specifications:

Resolution: 800x480 Native
Screen Size (diagonal): 5"
Audio Support? (Y/N): N
IPS? (Y/N): N
Inputs: HDMI
Touchscreen? (Y/N): Y
Power: 5V @ 500mA

For display dimensions, exact size, resolution, dot pitch, contrast, etc check out the datasheet for the TFT itself! (https://adafru.it/dWZ)

Click here to see the driver board's datasheet! (https://adafru.it/dTQ)

Click here for more information on the mini driver board! (https://adafru.it/Cdm)

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
#disable_overscan=1

# uncomment the following to adjust overscan. Use positive numbers if console
# goes off screen, and negative if there is too much border
#overscan_left=16
#overscan_right=16
#overscan_top=16
#overscan_bottom=16

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=720

# 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_cvt=800 480 60 6 0 0 0

# uncomment to force a HDMI mode rather than DVI. This can make audio work in
# DMT (computer monitor) modes
#hdmi_drive=2

# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

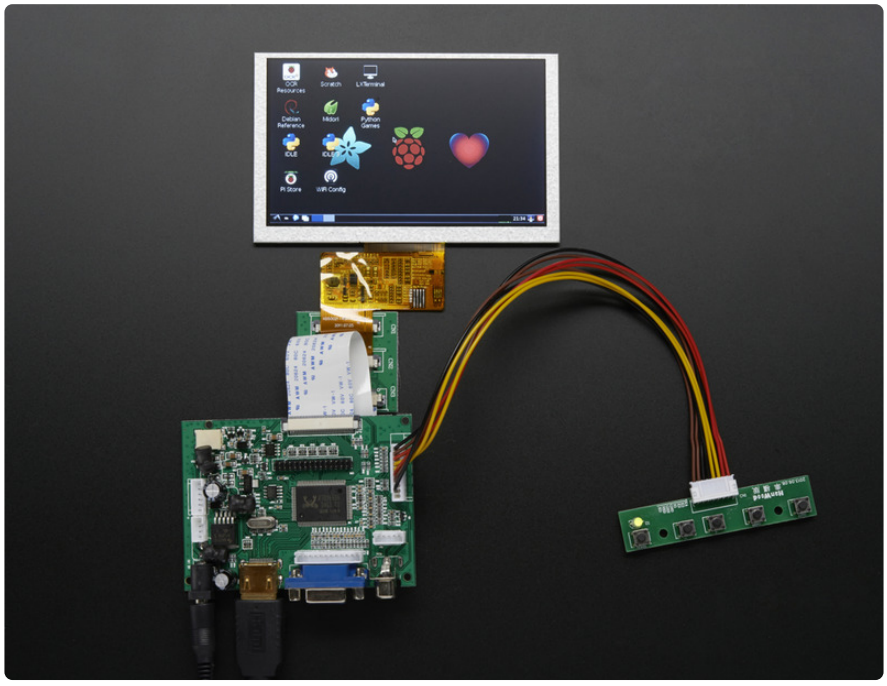
# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt

max_usb_current=1
```

1678 - 5" Display 800x480



This is one of our smallest HDMI-compatible displays, works great and is very small! We also have this display with a mini HDMI-only driver (#1928)

Since the display is not in a case, you may want a wire monitor stand. It's a simple way to prop up the screen! (http://adafru.it/1679)

Specifications:

Resolution: 800x400 Native

Screen Size (diagonal): 5"
Audio Support? (Y/N): N
IPS? (Y/N): N
Inputs: HDMI/VGA/NTSC/PAL
Touchscreen? (Y/N): N
Power: 5-12VDC

For display dimensions, exact size, resolution, dot pitch, contrast, etc check out the datasheet for the TFT itself! (https://adafru.it/dWZ)

Click here to see the driver board's datasheet! (https://adafru.it/dTS)

Click here for more info on the driver board! (https://adafru.it/Cdn)

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
#disable_overscan=1

# uncomment the following to adjust overscan. Use positive numbers if console
# goes off screen, and negative if there is too much border
#overscan_left=16
#overscan_right=16
#overscan_top=16
#overscan_bottom=16

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=720

# 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_cvt=800 480 60 6 0 0 0

# uncomment to force a HDMI mode rather than DVI. This can make audio work in
# DMT (computer monitor) modes
#hdmi_drive=2

# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

# uncomment for composite PAL
#sdtv_mode=2

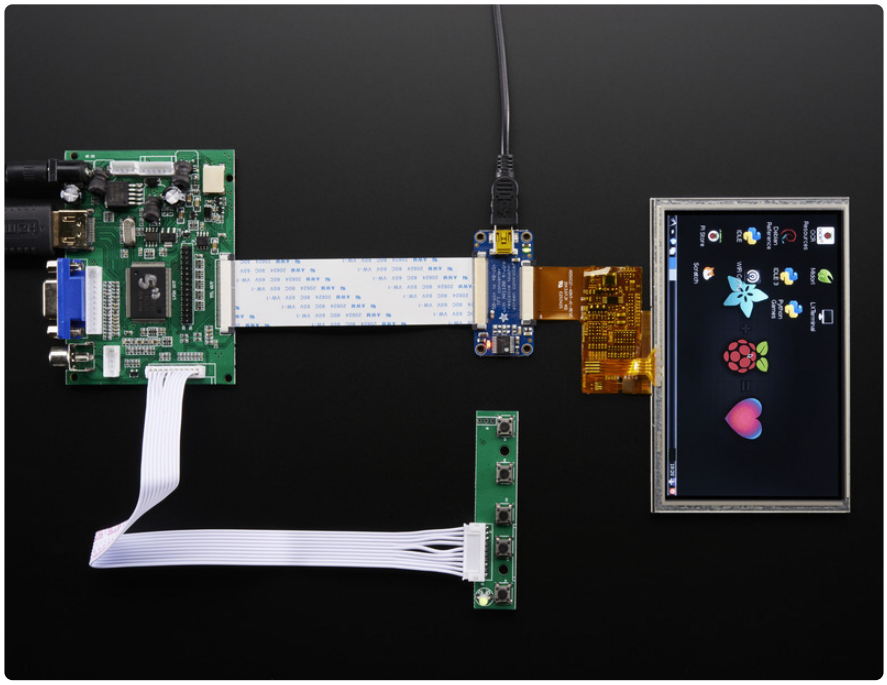
#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt
```

2232 + 2260 - 5" 800x480 Backpacks

These displays use the TFP401 HDMI decoder chip and have their very own guide! (https://adafru.it/j7F)

2110 - 5" Touch Display 800x480



This is our smallest HDMI-compatible displays, works great and is very small! We also have this display with a mini HDMI-only driver(#2109).

This is the touchscreen version of the display!

Since the display is not in a case, you may want a wire monitor stand. It's a simple way to prop up the screen! (http://adafru.it/1679)

Resolution: 800x400 Native
Screen Size (diagonal): 5"
Audio Support? (Y/N): N
IPS? (Y/N): N
Inputs: HDMI/VGA/NTSC/PAL
Touchscreen? (Y/N): Y
Power: 5-12VDC

For display dimensions, exact size, resolution, dot pitch, contrast, etc check out the datasheet for the TFT itself! (https://adafru.it/dWZ)

Click here to see the driver board's datasheet! (https://adafru.it/dTS)

Click here for more info on the driver board! (https://adafru.it/Cdn)

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
#disable_overscan=1

# uncomment the following to adjust overscan. Use positive numbers if console
# goes off screen, and negative if there is too much border
#overscan_left=16
#overscan_right=16
#overscan_top=16
#overscan_bottom=16

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=720

# 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_cvt=800 480 60 6 0 0 0

# uncomment to force a HDMI mode rather than DVI. This can make audio work in
# DMT (computer monitor) modes
#hdmi_drive=2

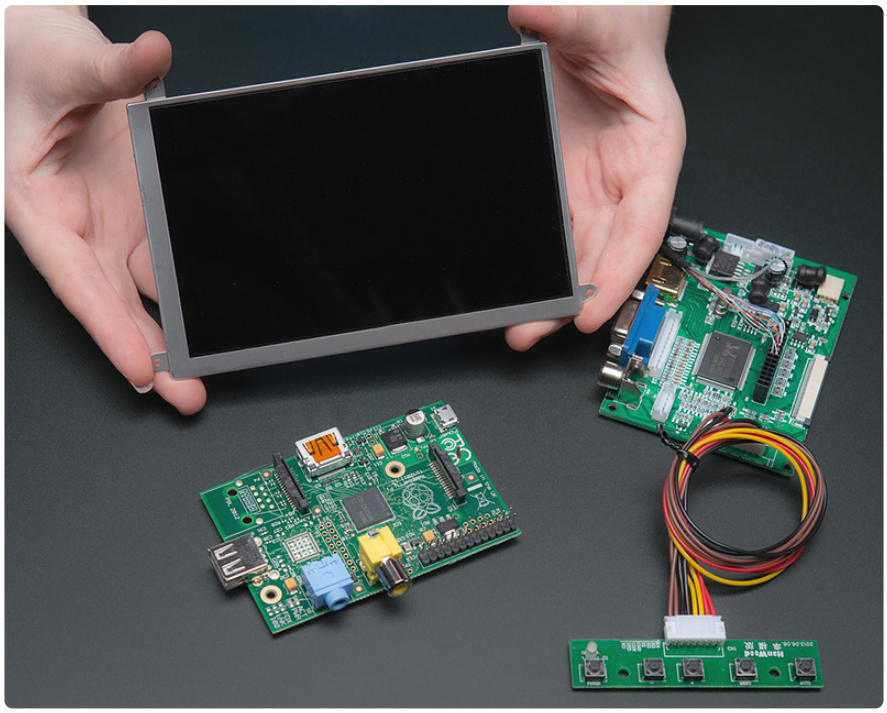
# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt
```

1666 - 5.6" Display 1280x800





This is our smallest high-res display, with 1280x800 resolution. It's not IPS, however! We also have a version with HDMI audio support (PID #1695)

Since the display is not in a case, you may want a wire monitor stand. It's a simple way to prop up the screen! (http://adafru.it/1679)

Specifications:

Resolution: 1280x800 Native
Screen Size (diagonal): 5"
Audio Support? (Y/N): N
IPS? (Y/N): N
Inputs: HDMI/VGA/NTSC/PAL
Touchscreen? (Y/N): N
Power: 5-12VDC

Click here to see the driver board's datasheet! (https://adafru.it/dTS)

Click here for more info on the driver board! (https://adafru.it/Cdn)

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
disable_overscan=1

#overscan_left=-40
#overscan_right=-40
#overscan_top=-40
#overscan_bottom=-40

hdmi_drive=1
hdmi_group=2
hdmi_mode=28

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=720

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

# uncomment to force a specific HDMI mode (this will force VGA)
#hdmi_group=1
#hdmi_mode=1

# uncomment to force a HDMI mode rather than DVI. This can make audio work in
# DMT (computer monitor) modes
#hdmi_drive=2

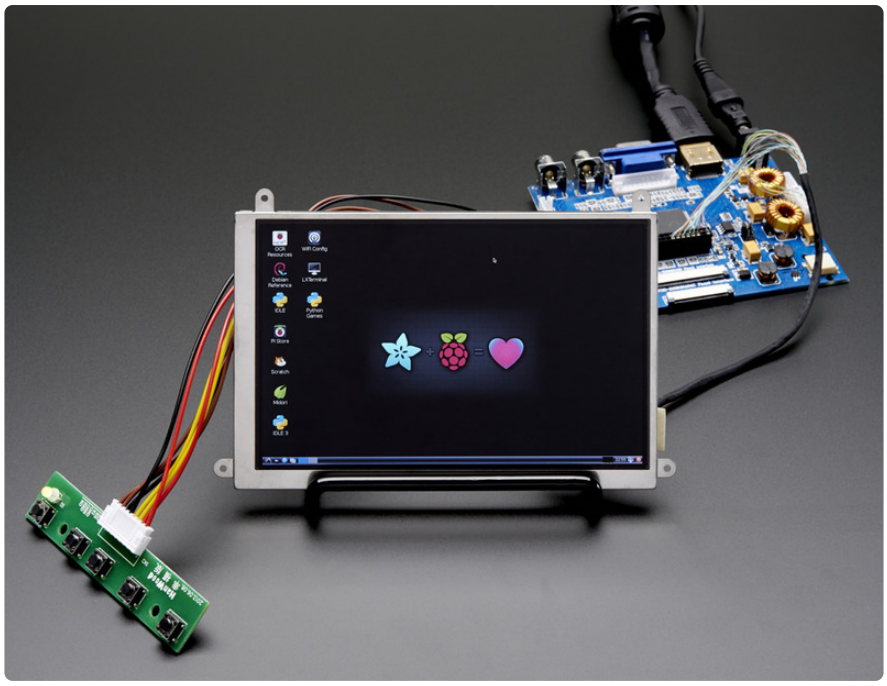
# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800
```

```
# for more options see http://elinux.org/RPi_config.txt
```

1695 - 5.6" Display & Audio 1280x800



This is our smallest high-res display, with 1280x800 resolution. It's not IPS, however! This version comes with an Audio-capable driver. we also have a version without audio (PID #1666)

Since the display is not in a case, you may want a wire monitor stand. It's a simple way to prop up the screen! (http://adafru.it/1679)

Specifications:

Resolution: 1280x800 Native
Screen Size (diagonal): 5.6"
Audio Support? (Y/N): Y
IPS? (Y/N): N
Inputs: HDMI/VGA/NTSC/PAL
Touchscreen? (Y/N): N
Power: 9-12VDC

Click here to see the driver board's datasheet! (https://adafru.it/dU1)

Click here for more information on the Driver Board w/ Audio! (https://adafru.it/Cdo)

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
#disable_overscan=1

# uncomment the following to adjust overscan. Use positive numbers if console
# goes off screen, and negative if there is too much border
#overscan_left=-40
#overscan_right=-40
#overscan_top=-40
#overscan_bottom=-40

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=800

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

# uncomment to force a specific HDMI mode Group 2 and Mode 28 is 1280x800 @ 60hz
hdmi_group=2
hdmi_mode=28

# This line will force the Pi to recognize the HDMI driver in video and audio mode
# change to =1 to have video only
hdmi_drive=2

# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

# uncomment for composite PAL
#sdtv_mode=2

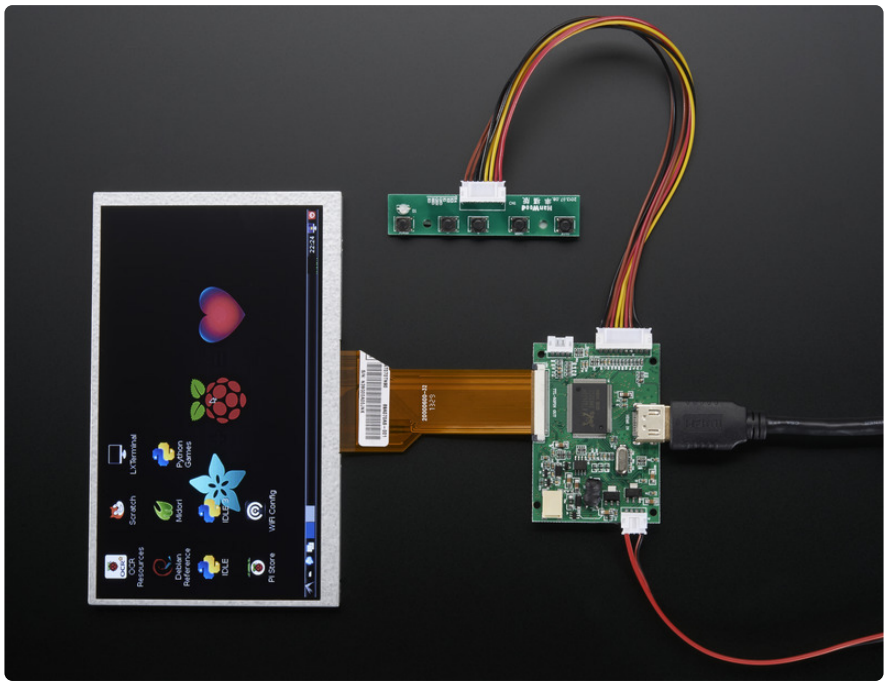
#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt
```

2406 + 2407 - 7" 800x480 Backpacks

These displays use the TFP401 HDMI decoder chip and are very similar to the 5" 800x480 backpacks! (https://adafru.it/j7F)

1933 - 7" Display w/Mini Driver 800x480



This is a medium sized, but easy to use HDMI-compatible displays, works great and is fairly small! The display looks nice and bright. We also have this display with a HDMI/VGA/NTSC/PAL dirver (#1934)

Since the display is not in a case, you may want a wire monitor stand. It's a simple way to prop up the screen! (http://adafru.it/1679)

Specifications:

Resolution: 800x480 Native
Screen Size (diagonal): 7"
Audio Support? (Y/N): N
IPS? (Y/N): N
Inputs: HDMI
Touchscreen? (Y/N): N
Power: 5V @ 500mA via USB port

For display dimensions, exact size, resolution, dot pitch, contrast, etc check out the datasheet for the TFT itself! (https://adafru.it/dX0)

Click here to see the driver board's datasheet! (https://adafru.it/dTQ)

Click here for more information on the mini driver board! (https://adafru.it/Cdm)

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
#disable_overscan=1

# uncomment the following to adjust overscan. Use positive numbers if console
# goes off screen, and negative if there is too much border
#overscan_left=16
#overscan_right=16
#overscan_top=16
#overscan_bottom=16

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=720

# 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_cvt=800 480 60 6 0 0 0

# uncomment to force a HDMI mode rather than DVI. This can make audio work in
# DMT (computer monitor) modes
#hdmi_drive=2

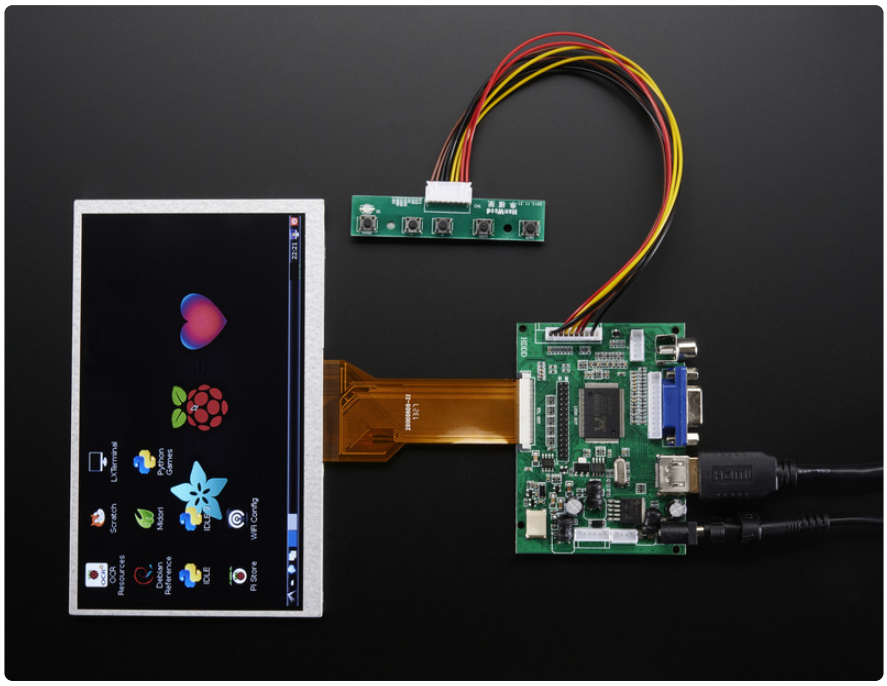
# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt
```

1934 - 7" Display 800x480



This is a medium sized, but easy to use HDMI-compatible displays, works great and is fairly small! The display looks nice and bright. We also have this display with a mini HDMI-only dirver (#1933)

Since the display is not in a case, you may want a wire monitor stand. It's a simple way to prop up the screen! (http://adafru.it/1679)

Specifications:

Resolution: 800x480 Native
Screen Size (diagonal): 7"
Audio Support? (Y/N): N
IPS? (Y/N): N
Inputs: HDMI/VGA/NTSC/PAL
Touchscreen? (Y/N): N
Power: 5-12VDC

For display dimensions, exact size, resolution, dot pitch, contrast, etc check out the datasheet for the TFT itself! (https://adafru.it/dX0)

Click here to see the driver board's datasheet! (https://adafru.it/dTS)

Click here for more info on the driver board! (https://adafru.it/Cdn)

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
#disable_overscan=1

# uncomment the following to adjust overscan. Use positive numbers if console
# goes off screen, and negative if there is too much border
#overscan_left=16
#overscan_right=16
#overscan_top=16
#overscan_bottom=16

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=720

# 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_cvt=800 480 60 6 0 0 0

# uncomment to force a HDMI mode rather than DVI. This can make audio work in
# DMT (computer monitor) modes
#hdmi_drive=2

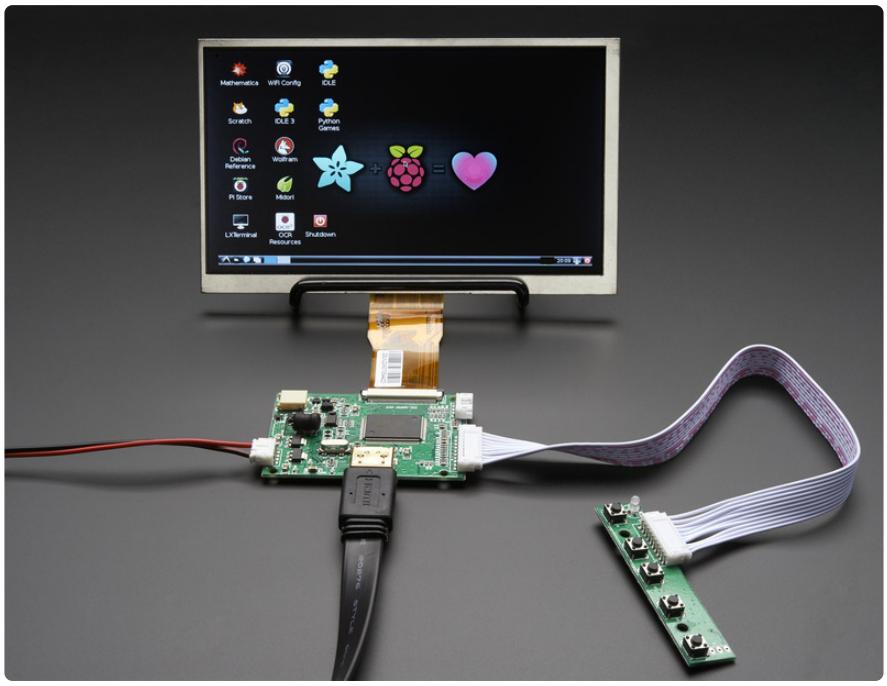
# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt
```

2300 - 7" Display w/ Mini Driver 1024x600



This is a medium sized, but easy to use HDMI-compatible displays, works great and is fairly small! The display looks nice and bright. We also have this display with a HDMI/VGA/NTSC/PAL driver (#2299) or w/ audio (#2301).

Since the display is not in a case, you may want a wire monitor stand. It's a simple way to prop up the screen (http://adafru.it/1679)

Specifications:

Resolution: 1024x600 Native
Screen Size (diagonal): 7"
Audio Support? (Y/N): N
IPS? (Y/N): N
Inputs: HDMI
Touchscreen? (Y/N): N
Power: 5V @ 500mA via USB port

Click here to see the driver board's datasheet! (https://adafru.it/dTQ)

Click here for more information on the mini driver board! (https://adafru.it/Cdm)

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1
```

```
# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
#disable_overscan=1

# uncomment the following to adjust overscan. Use positive numbers if console
# goes off screen, and negative if there is too much border
#overscan_left=16
#overscan_right=16
#overscan_top=16
#overscan_bottom=16

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=720

# 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_cvt=1024 600 60 3 0 0 0

# uncomment to force a HDMI mode rather than DVI. This can make audio work in
# DMT (computer monitor) modes
#hdmi_drive=2

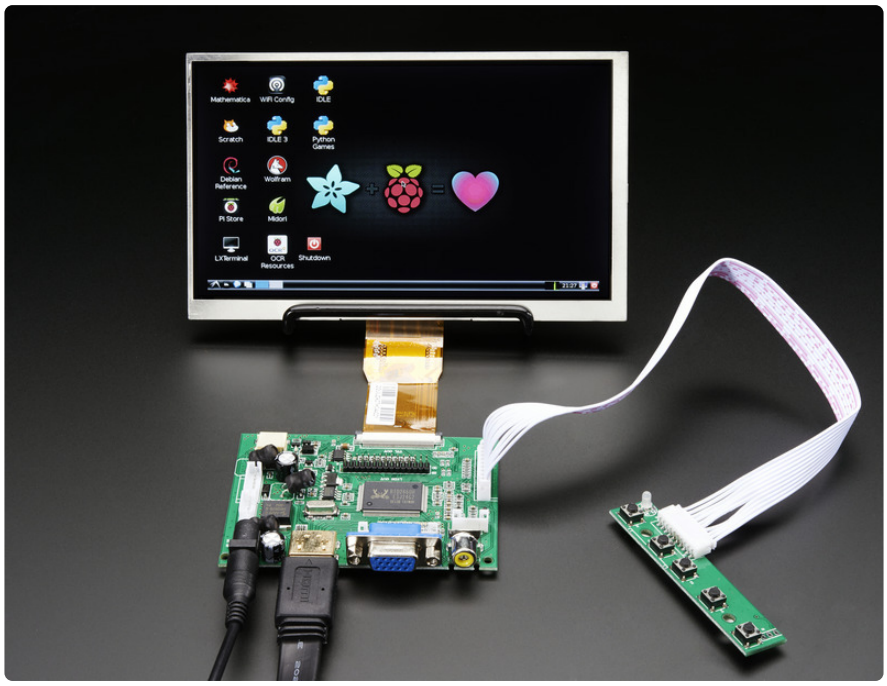
# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt
```

2299 - 7" Display - 1024x600



This is a medium sized, but easy to use HDMI-compatible displays, works great and is fairly small! The display looks nice and bright. We also have this display with a mini HDMI-only driver (#2300) and w/ audio (#2301).

Since the display is not in a case, you may want a wire monitor stand. It's a simple way to prop up the screen! (http://adafru.it/1679)

Specifications:

Resolution: 1024x600 Native
Screen Size (diagonal): 7"
Audio Support? (Y/N): N
IPS? (Y/N): N
Inputs: HDMI/VGA/NTSC/PAL
Touchscreen? (Y/N): N
Power: 5-12VDC

Click here to see the driver board's datasheet! (https://adafru.it/dTS)

Click here for more info on the driver board! (https://adafru.it/Cdn)

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
#disable_overscan=1

# uncomment the following to adjust overscan. Use positive numbers if console
# goes off screen, and negative if there is too much border
#overscan_left=16
#overscan_right=16
#overscan_top=16
#overscan_bottom=16

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=720

# 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_cvt=1024 600 60 3 0 0 0


# uncomment to force a HDMI mode rather than DVI. This can make audio work in
# DMT (computer monitor) modes
#hdmi_drive=2

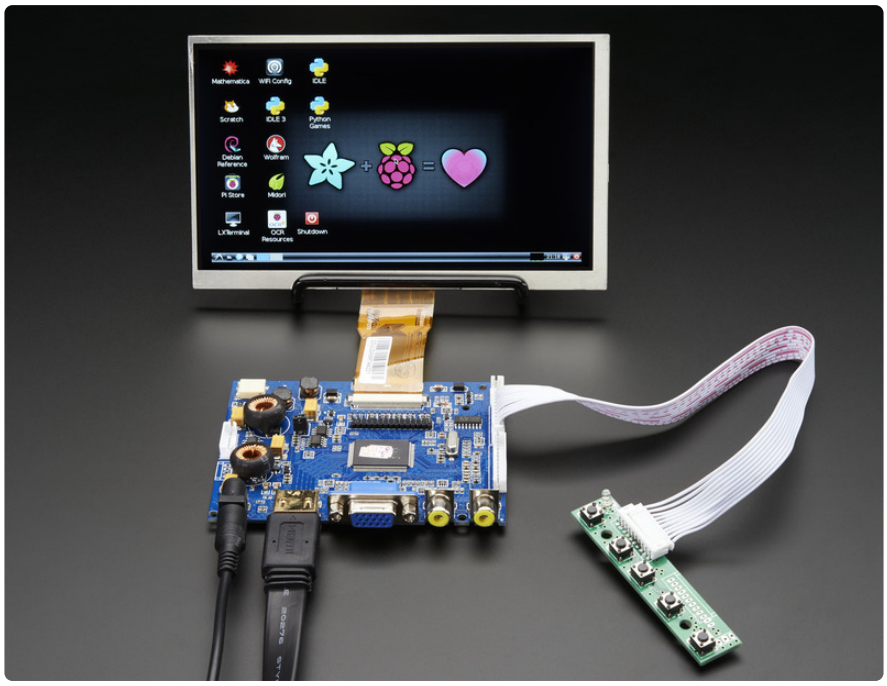
# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt
```

2301 - 7" Display & Audio - 1024x600



This is a medium sized, but easy to use HDMI-compatible displays, works great and is fairly small! The display looks nice and bright and it comes with a plug-in cable that connects to 4 speaker output pins.

We also have this display with a mini HDMI-only driver (#2300) and standard driver board (#2299).

Since the display is not in a case, you may want a wire monitor stand. It's a simple way to prop up the screen! (http://adafru.it/1679)

Specifications:

Resolution: 1024x600 Native
Screen Size (diagonal): 7"
Audio Support? (Y/N): Y
IPS? (Y/N): N
Inputs: HDMI/VGA/NTSC/PAL
Touchscreen? (Y/N): N
Power: 5-12VDC

Click here to see the driver board's datasheet! (https://adafru.it/dU1)

Click here for more information on the Driver Board w/ Audio! (https://adafru.it/Cdo)

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
#disable_overscan=1

# uncomment the following to adjust overscan. Use positive numbers if console
# goes off screen, and negative if there is too much border
#overscan_left=16
#overscan_right=16
#overscan_top=16
#overscan_bottom=16

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=720

# 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=2
hdmi_mode=87
hdmi_cvt=1024 600 60 3 0 0 0


# uncomment to force a HDMI mode rather than DVI. This can make audio work in
# DMT (computer monitor) modes
#hdmi_drive=2

# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt
```

1033 - 7" Monitor 1280x800 IPS Standalone



This monitor is nice when you just want a plug & play stand-alone solution. It's basically the same electronics as #1931 but in a case

It's got excellent resolution (1280x800!) and IPS display so it is bright, crisp and looks good from any angle

Specifications:

Resolution: 1280x800 Native
Screen Size (diagonal): 7"
Audio Support? (Y/N): Y
IPS? (Y/N): Y
Inputs: HDMI/VGA/PAL/NTSC
Touchscreen? (Y/N): N
Power: 5-12VDC

For display dimensions, exact size, resolution, dot pitch, contrast, etc check out the datasheet for the TFT itself! (https://adafru.it/dX1)

Click here for more info on the driver board that's inside of this one! (https://adafru.it/Cdn)

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
disable_overscan=1

#overscan_left=-40
#overscan_right=-40
#overscan_top=-40
#overscan_bottom=-40

hdmi_drive=1
hdmi_group=2
hdmi_mode=28

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=720

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

# uncomment to force a specific HDMI mode (this will force VGA)
#hdmi_group=1
#hdmi_mode=1

# uncomment to force a HDMI mode rather than DVI. This can make audio work in
# DMT (computer monitor) modes
#hdmi_drive=2

# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt
```

1667 - 7" Monitor 1280x800 IPS w/Speakers



This monitor is nice when you just want a plug & play stand-alone solution. It's basically the same electronics as #1726 but in a case with built in speakers!

It's got excellent resolution (1280x800!) and IPS display so it is bright, crisp and looks good from any angle

This display is the same 7" display as in PID 1033, but with a different driver board.

This monitor is nice when you just want a plug & play stand-alone solution. It's basically the same electronics as #1726 but in a case with built in speakers!

It's got excellent resolution (1280x800!) and IPS display so it is bright, crisp and looks good from any angle

This display is the same 7" display as in PID 1033, but with a different driver board.

There's a 3.5mm audio jack input on the side, this is for VGA-usage only, so you can have video and audio. It doesn't work with NTSC!

Note: occassionally, these screens come to us with Mandarin as their default language. To set the language settings to English, power the screen, turn it on, and press the following sequence of buttons:

Menu
+
+
Menu
-
Switch
Power

You must hit Power before unplugging or the changes will not save.

Specifications:

Resolution: 1280x800 Native
Screen Size (diagonal): 7"
Audio Support? (Y/N): Y
IPS? (Y/N): Y
Inputs: HDMI/VGA/NTSC/PAL
Touchscreen? (Y/N): N
Power: 9-12VDC

For display dimensions, exact size, resolution, dot pitch, contrast, etc check out the datasheet for the TFT itself! (https://adafru.it/dX1)

We're not sure what the driver board on this one is. But it works great just the same!

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
disable_overscan=1

#overscan_left=-40
#overscan_right=-40
#overscan_top=-40
#overscan_bottom=-40

hdmi_drive=1
hdmi_group=2
hdmi_mode=28

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=720

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

```
# uncomment to force a specific HDMI mode (this will force VGA)
#hdmi_group=1
#hdmi_mode=1

# uncomment to force a HDMI mode rather than DVI. This can make audio work in
# DMT (computer monitor) modes
#hdmi_drive=2

# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt
```

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
disable_overscan=1

#overscan_left=-40
#overscan_right=-40
#overscan_top=-40
#overscan_bottom=-40

hdmi_drive=1
hdmi_group=2
hdmi_mode=28

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=720

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

# uncomment to force a specific HDMI mode (this will force VGA)
#hdmi_group=1
#hdmi_mode=1

# uncomment to force a HDMI mode rather than DVI. This can make audio work in
# DMT (computer monitor) modes
#hdmi_drive=2

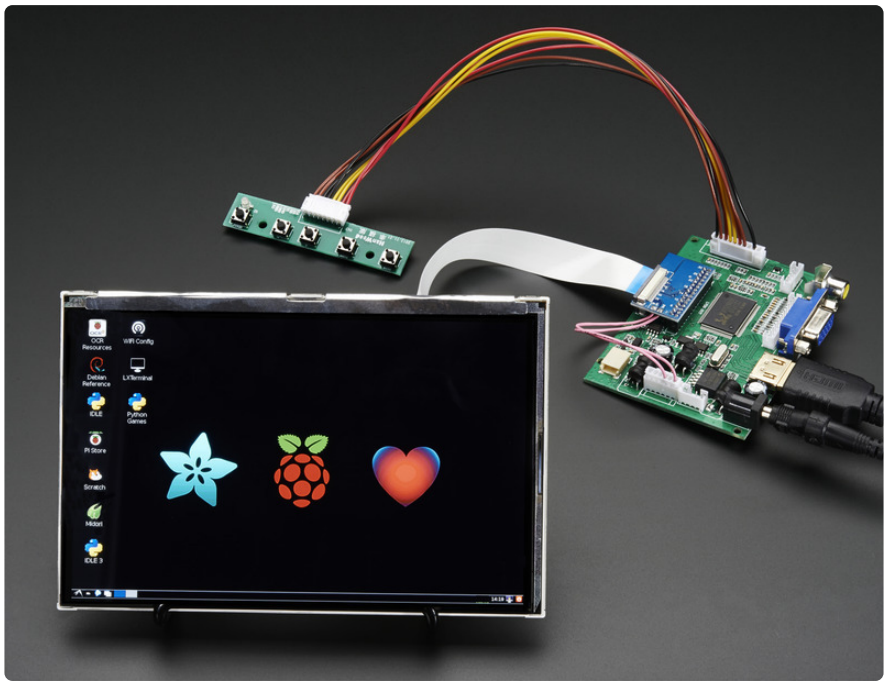
# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt
```

1931 - 7" Display 1280x800 IPS



This is one of our prettiest display It's got excellent resolution (1280x800!) and IPS display so it is bright, crisp and looks good from any angle

If you want this same display in a casing, check out #1033 or #1667. This kit is best for when you want to customize the casing. Note that there's a very thin bezel on this display so you can mounting it but must be done from the back of the display!

We also have the same basic setup but with speakers, as #1726

Since the display is not in a case, you may want a wire monitor stand. It's a simple way to prop up the screen! (http://adafru.it/1679)

Specifications:

Resolution: 1280x800 Native
Screen Size (diagonal): 7"
Audio Support? (Y/N): N
IPS? (Y/N): Y
Inputs: HDMI/VGA/NTSC/PAL
Touchscreen? (Y/N): N
Power: 5 to 9VDC

For display dimensions, exact size, resolution, dot pitch, contrast, etc check out the datasheet for the TFT itself! (https://adafru.it/dX1)

Click here to see the driver board's datasheet! (https://adafru.it/dTS)

Click here for more info on the driver board! (https://adafru.it/Cdn)

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
#disable_overscan=1

# uncomment the following to adjust overscan. Use positive numbers if console
# goes off screen, and negative if there is too much border
#overscan_left=-40
#overscan_right=-40
#overscan_top=-40
#overscan_bottom=-40

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=800

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

# uncomment to force a specific HDMI mode Group 2 and Mode 28 is 1280x800 @ 60hz
hdmi_group=2
hdmi_mode=28

# This line will force the Pi to recognize the HDMI driver in video and audio mode
# change to =1 to have video only
hdmi_drive=1

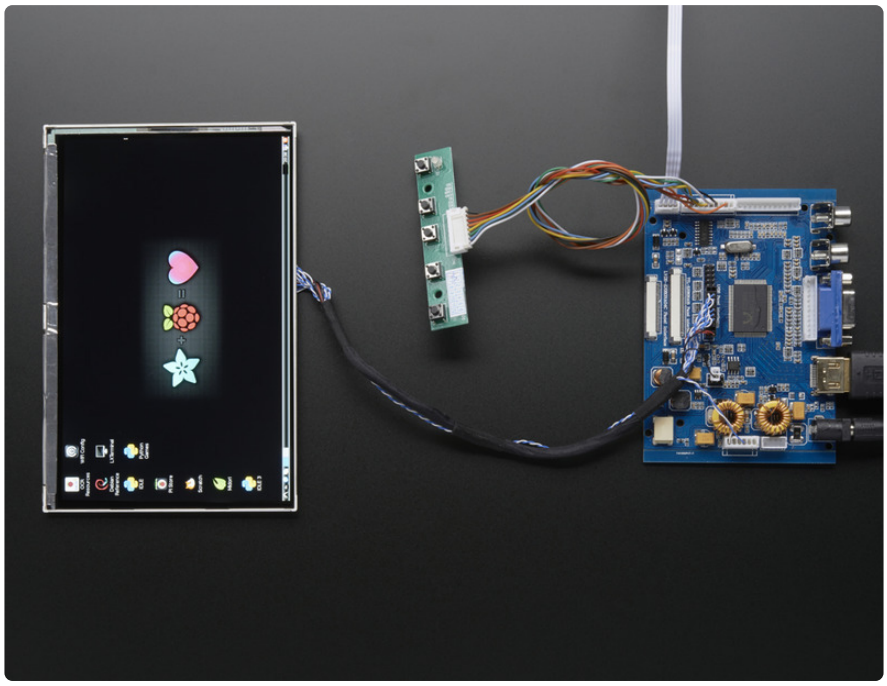
# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt
```

1726 - 7" Display & Audio 1280x800 IPS



This is one of our prettiest display It's got excellent resolution (1280x800!) and IPS display so it is bright, crisp and looks good from any angle. This driver even has HDMI audio support and can drive two 4 ohm speakers directly.

If you want this same display in a casing, check out #1033 or #1667. This kit is best for when you want to customize the casing. Note that there's a very thin bezel on this display so you can mounting it but must be done from the back of the display!

We also have the same basic setup but without audio support, as #1931

Since the display is not in a case, you may want a wire monitor stand. It's a simple way to prop up the screen! (http://adafru.it/1679)

Specifications:

Resolution: 1280x800 Native
Screen Size (diagonal): 7"
Audio Support? (Y/N): Y
IPS? (Y/N): Y
Inputs: HDMI/VGA/NTSC/PAL
Touchscreen? (Y/N): N
Power: 9-12VDC

For display dimensions, exact size, resolution, dot pitch, contrast, etc check out the datasheet for the TFT itself! (https://adafru.it/dX1)

Click here to see the driver board's datasheet! (https://adafru.it/dU1)

Click here for more information on the Driver Board w/ Audio! (https://adafru.it/Cdo)

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
#disable_overscan=1

# uncomment the following to adjust overscan. Use positive numbers if console
# goes off screen, and negative if there is too much border
#overscan_left=-40
#overscan_right=-40
#overscan_top=-40
#overscan_bottom=-40

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=800

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

# uncomment to force a specific HDMI mode Group 2 and Mode 28 is 1280x800 @ 60hz
hdmi_group=2
hdmi_mode=28

# This line will force the Pi to recognize the HDMI driver in video and audio mode
# change to =1 to have video only
hdmi_drive=2

# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt
```

2395 - 7" Touch Display 1024x600

This is a medium sized, but easy to use HDMI-compatible displays, works great and is fairly small! The display looks nice and bright. We also have this display with a mini HDMI-only driver (#2396) and w/ audio (#2397).

Since the display is not in a case, you may want a wire monitor stand. It's a simple way to prop up the screen! (http://adafru.it/1679)

Specifications

Resolution: 1024x600 Native
Screen Size (diagonal): 7"
Audio Support? (Y/N): N
IPS? (Y/N): N
Inputs: HDMI/VGA/NTSC/PAL
Touchscreen? (Y/N): Y
Power: 5-12VDC

Click here to see the driver board's datasheet! (https://adafru.it/dTS)

Click here for more info on the driver board! (https://adafru.it/Cdn)

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
#disable_overscan=1

# uncomment the following to adjust overscan. Use positive numbers if console
# goes off screen, and negative if there is too much border
#overscan_left=16
#overscan_right=16
#overscan_top=16
#overscan_bottom=16

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=720

# 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_cvt=1024 600 60 3 0 0 0


# uncomment to force a HDMI mode rather than DVI. This can make audio work in
# DMT (computer monitor) modes
#hdmi_drive=2

# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

# uncomment for composite PAL
```

```
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt
```

2396 - 7" Touch Display 1024x600 - Mini Driver

This is a medium sized, but easy to use HDMI-compatible displays, works great and is fairly small! The display looks nice and bright. We also have this display with a HDMI/VGA/NTSC/PAL driver (#2395) or w/ audio (#2397).

Since the display is not in a case, you may want a wire monitor stand. It's a simple way to prop up the screen (http://adafru.it/1679)

Specifications:

Resolution: 1024x600 Native
Screen Size (diagonal): 7"
Audio Support? (Y/N): N
IPS? (Y/N): N
Inputs: HDMI
Touchscreen? (Y/N): Y
Power: 5V @ 500mA via USB port

Click here to see the driver board's datasheet! (https://adafru.it/dTQ)

Click here for more information on the mini driver board! (https://adafru.it/Cdm)

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
#disable_overscan=1

# uncomment the following to adjust overscan. Use positive numbers if console
# goes off screen, and negative if there is too much border
#overscan_left=16
#overscan_right=16
#overscan_top=16
#overscan_bottom=16

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
```

```
#framebuffer_height=720

# 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_cvt=1024 600 60 3 0 0 0

# uncomment to force a HDMI mode rather than DVI. This can make audio work in
# DMT (computer monitor) modes
#hdmi_drive=2

# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt
```

2397 - 7" Touch Display 1024x600 w/ Audio

This is a medium sized, but easy to use HDMI-compatible displays, works great and is fairly small! The display looks nice and bright and it comes with a plug-in cable that connects to 4 speaker output pins.

We also have this display with a mini HDMI-only driver (#2396) and standard driver board (#2395).

Since the display is not in a case, you may want a wire monitor stand. It's a simple way to prop up the screen! (http://adafru.it/1679)

Specifications:

Resolution: 1024x600 Native
Screen Size (diagonal): 7"
Audio Support? (Y/N): Y
IPS? (Y/N): N
Inputs: HDMI/VGA/NTSC/PAL
Touchscreen? (Y/N): Y
Power: 5-12VDC

Click here to see the driver board's datasheet! (https://adafru.it/dU1)

Click here for more information on the Driver Board w/ Audio! (https://adafru.it/Cdo)

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
#disable_overscan=1

# uncomment the following to adjust overscan. Use positive numbers if console
# goes off screen, and negative if there is too much border
#overscan_left=16
#overscan_right=16
#overscan_top=16
#overscan_bottom=16

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=720

# 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=2
hdmi_mode=87
hdmi_cvt=1024 600 60 3 0 0 0


# uncomment to force a HDMI mode rather than DVI. This can make audio work in
# DMT (computer monitor) modes
#hdmi_drive=2

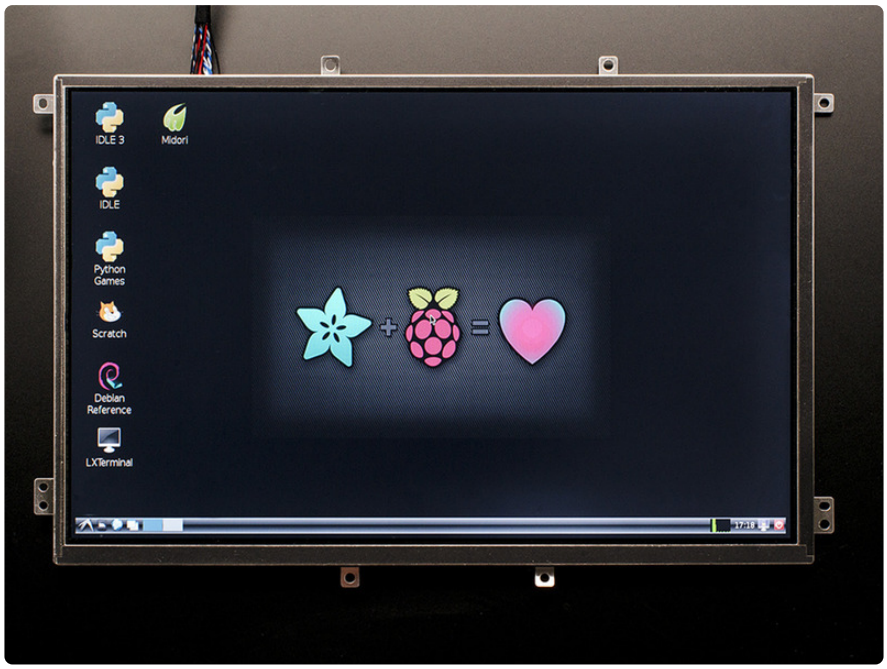
# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

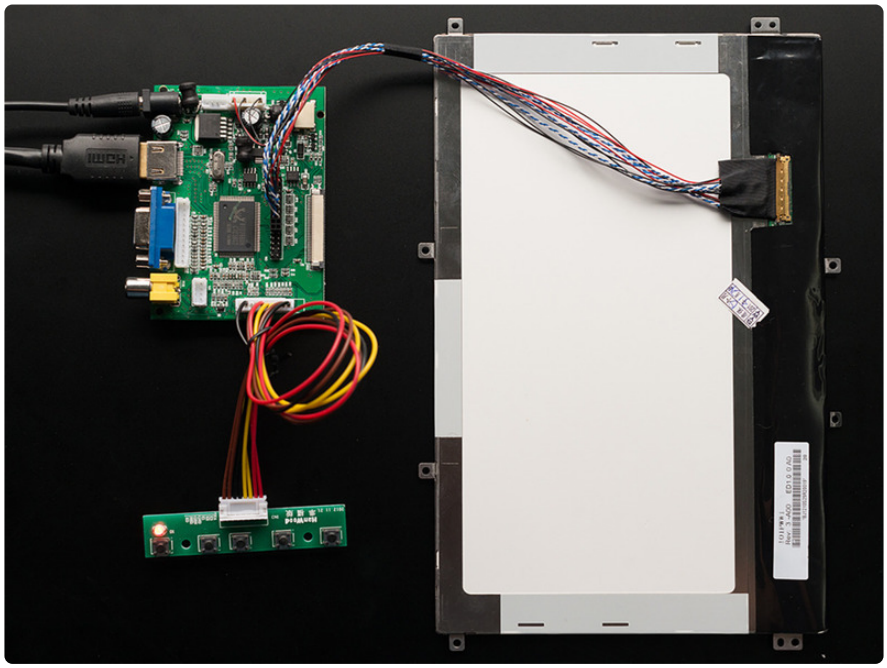
# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt
```

1287 - 10.1" Display 1280x800 IPS





This is one of our prettiest display It's got excellent resolution (1280x800!) and IPS display so it is bright, crisp and looks good from any angle. This driver even has HDMI audio support and can drive two 4 ohm speakers directly.

If you want this same display in a casing, check out #1033 or #1667. This kit is best for when you want to customize the casing. Note that there's a very thin bezel on this display so you can mounting it but must be done from the back of the display!

We also have the same basic setup but without audio support, as #1931

Since the display is not in a case, you may want a wire monitor stand. It's a simple way to prop up the screen! (http://adafru.it/1753)

Specifications:

Resolution: 1280x800 Native
Screen Size (diagonal): 10.1"
Audio Support? (Y/N): N
IPS? (Y/N): Y
Inputs: HDMI/VGA/NTSC/PAL
Touchscreen? (Y/N): N
Power: 9-12VDC

For display dimensions, exact size, resolution, dot pitch, contrast, etc check out the datasheet for the TFT itself! (https://adafru.it/dX2)

Click here to see the driver board's datasheet! (https://adafru.it/dTS)

Click here for more info on the driver board! (https://adafru.it/Cdn)

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
#disable_overscan=1

# uncomment the following to adjust overscan. Use positive numbers if console
# goes off screen, and negative if there is too much border
#overscan_left=-40
#overscan_right=-40
#overscan_top=-40
#overscan_bottom=-40

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=800

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

# uncomment to force a specific HDMI mode Group 2 and Mode 28 is 1280x800 @ 60hz
hdmi_group=2
hdmi_mode=28

# uncomment to force a HDMI mode rather than DVI. This can make audio work in DMT
(computer monitor) modes
hdmi_drive=1

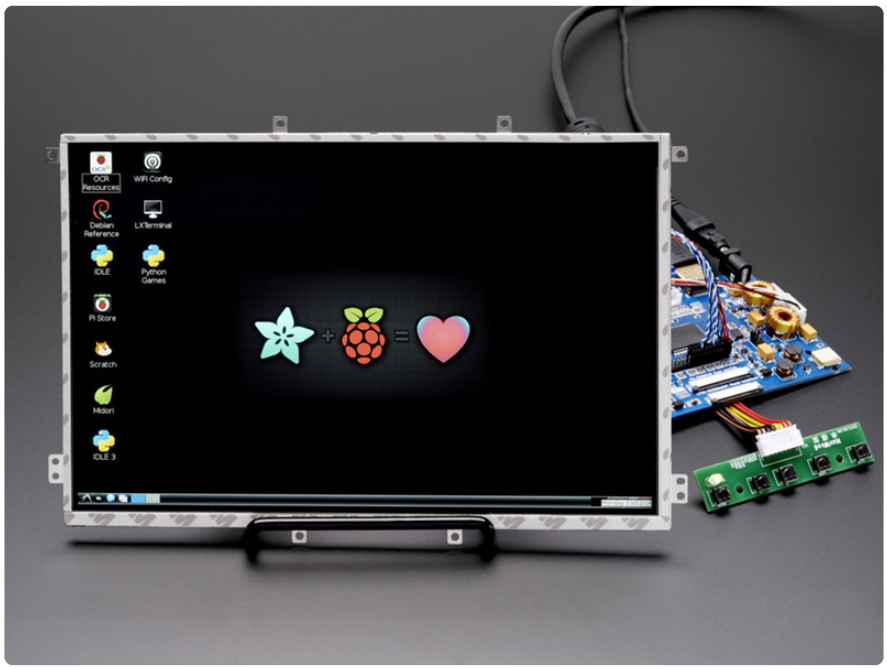
# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4
```

```
# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt
```

1694 - 10.1" Display & Audio 1280x800 IPS



This is one of our prettiest display It's got excellent resolution (1280x800!) and IPS display so it is bright, crisp and looks good from any angle. This driver even has HDMI audio support and can drive two 4 ohm speakers directly.

We also have the same basic setup but without audio support, as #1287

Since the display is not in a case, you may want a wire monitor stand. It's a simple way to prop up the screen! (http://adafru.it/1753)

Specifications:

Resolution: 1280x800 Native
Screen Size (diagonal): 10.1"
Audio Support? (Y/N): Y
IPS? (Y/N): Y
Inputs: HDMI/VGA/NTSC/PAL
Touchscreen? (Y/N): N

For display dimensions, exact size, resolution, dot pitch, contrast, etc check out the datasheet for the TFT itself! (https://adafru.it/dX2)

Click here to see the driver board's datasheet! (https://adafru.it/dU1)

Click here for more information on the Driver Board w/ Audio! (https://adafru.it/Cdo)

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
#disable_overscan=1

# uncomment the following to adjust overscan. Use positive numbers if console
# goes off screen, and negative if there is too much border
#overscan_left=-40
#overscan_right=-40
#overscan_top=-40
#overscan_bottom=-40

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=800

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

# uncomment to force a specific HDMI mode Group 2 and Mode 28 is 1280x800 @ 60hz
hdmi_group=2
hdmi_mode=28

# This line will force the Pi to recognize the HDMI driver in video and audio mode
# change to =1 to have video only
hdmi_drive=2

# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4

# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt
```

2261 - 10.1" 1366x768 Display IPS + Speakers



This monitor is nice when you just want a plug & play stand-alone solution. It's basically the same electronics as #1931 but in a case

It's got excellent resolution (1366x768!) and IPS display so it is bright, crisp and looks good from any angle

Specifications:

Resolution: 1366x768 Native
Screen Size (diagonal): 10.1"
Audio Support? (Y/N): Y
IPS? (Y/N): Y
Inputs: HDMI/VGA/PAL/NTSC
Touchscreen? (Y/N): N
Power: 5-12VDC

We don't have a datasheet at this time.

Click here for more info on the driver board that's inside of this one! (https://adafru.it/Cdn)

To get your display working with a Pi, here is our suggested config.txt:

```
# For more options and information see
# http://www.raspberrypi.org/documentation/configuration/config-txt.md
# Some settings may impact device functionality. See link above for details

# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
#disable_overscan=1

# uncomment the following to adjust overscan. Use positive numbers if console
# goes off screen, and negative if there is too much border
#overscan_left=16
#overscan_right=16
#overscan_top=16
#overscan_bottom=16

# uncomment to force a console size. By default it will be display's size minus
# overscan.
#framebuffer_width=1280
#framebuffer_height=720

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

# uncomment to force a specific HDMI mode (this will force VGA)
hdmi_drive=2
hdmi_group=2
# 1366 x 768 @ 60hz
hdmi_mode=81

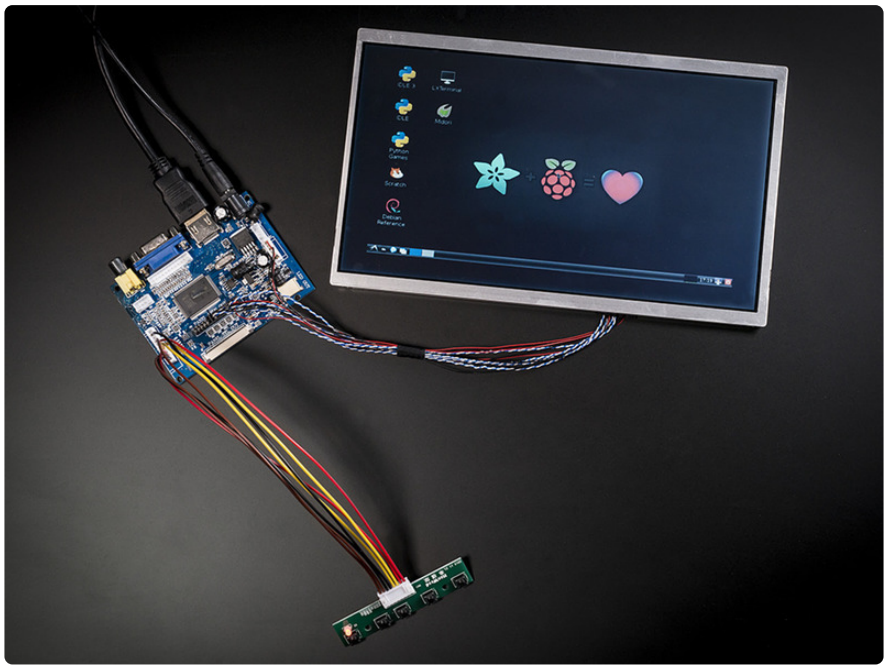

# uncomment to force a HDMI mode rather than DVI. This can make audio work in
# DMT (computer monitor) modes

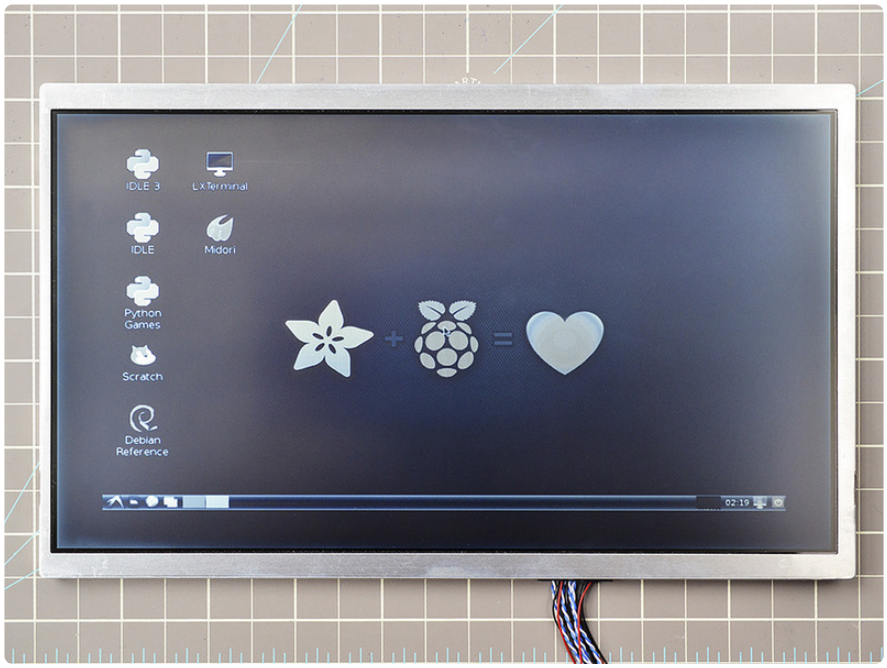
# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
config_hdmi_boost=4

# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800
```

1303 - Pixel Qi 10" Display 1024x600





The revolutionary Pixel Qi display is different than the other displays we carry and is the only one really designed for indoor/outdoor in full sun!

The display is made with two layers, color and grayscale. Indoors, the color layer is visible. When outside, you will automatically see only the grayscale part of the display. If you want to save power you can remove the backlight connector from the driver.

Since the display is not in a case, you may want a wire monitor stand. It's a simple way to prop up the screen! (http://adafru.it/1753)

Specifications:

Resolution: 1024x600
Screen Size (diagonal): 10"
Audio Support? (Y/N): N
IPS? (Y/N): N
Inputs: HDMI/VGA/NTSC/PAL
Touchscreen? (Y/N): N
Power: 5-12VDC

For display dimensions, exact size, resolution, dot pitch, contrast, etc check out the datasheet for the TFT itself! (https://adafru.it/dX3)

Click here to see the driver board's datasheet! (https://adafru.it/dTS)

This display comes with a RTD2660 HDMI/VGA/NTSC/Pal Driver board (https://adafru.it/Cdn)

To get your display working with a Pi, here is our suggested config.txt:

```
# uncomment if you get no picture on HDMI for a default "safe" mode
#hdmi_safe=1

# uncomment this if your display has a black border of unused pixels visible
# and your display can output without overscan
#disable_overscan=1

# uncomment the following to adjust overscan. Use positive numbers if console
# goes off screen, and negative if there is too much border
#overscan_left=16
#overscan_right=16
#overscan_top=16
#overscan_bottom=16

# uncomment to force a console size. By default it will be display's size minus
# overscan.
framebuffer_width=1024
framebuffer_height=600

hdmi_force_hotplug=1
#hdmi_ignore_edid=0xa5000080
hdmi_cvt=1024 600 60 3 0 0 0


# uncomment to force a specific HDMI mode (this will force VGA)
hdmi_group=2
hdmi_mode=87

# uncomment to force a HDMI mode rather than DVI. This can make audio work in
# DMT (computer monitor) modes
#hdmi_drive=2

# uncomment to increase signal to HDMI, if you have interference, blanking, or
# no display
#config_hdmi_boost=4
```

```
# uncomment for composite PAL
#sdtv_mode=2

#uncomment to overclock the arm. 700 MHz is the default.
#arm_freq=800

# for more options see http://elinux.org/RPi_config.txt
gpu_mem=16
```

Drivers

We carry a number of different drivers for our HDMI screens. Each has different specs, look, and inputs. We've outlined each below with a picture and datasheet as well as the power needed to drive the board.

We currently carry displays with the following boards:

RTD2660H Mini Driver Board - HDMI INput only, TTL displays only **(https://adafru.it/Cdp)**

RTD2660H HDMI/VGA/NTSC/PAL Driver Board without Audio **(https://adafru.it/dT4)**

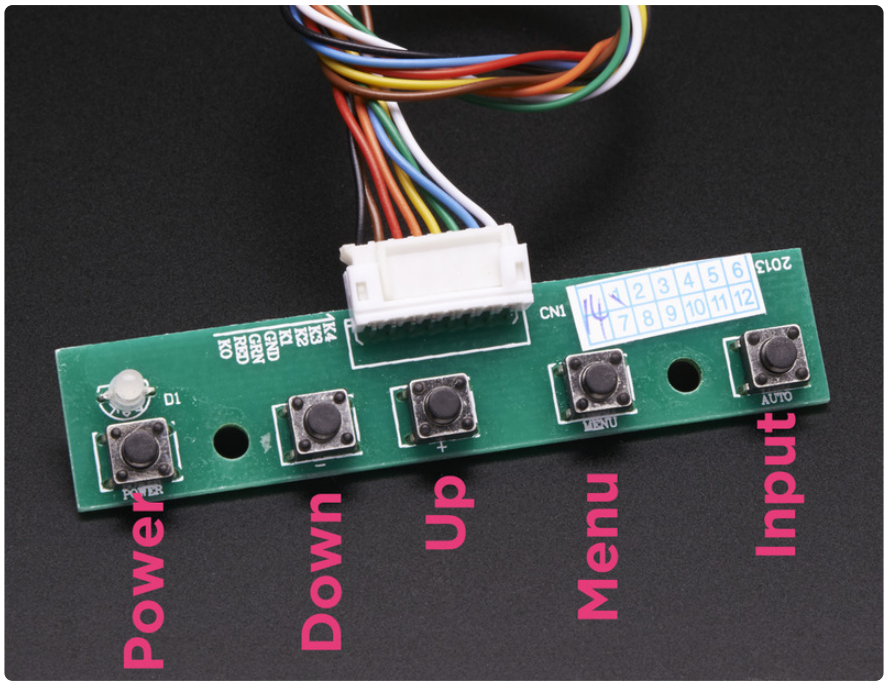
RTD2668 HDMI/VGA/NTSC/PAL Driver Board with Audio **(https://adafru.it/dT5)**

Certain HDMI displays have driver boards that we have no information on. They are as follows:

PID 1667 - 7" Display 1280x800 IPS + Speakers (https://adafru.it/Cdq)

Keyboard

Each HDMI display, with the exception of PID 1033 and PID 1667, comes with the same 4-button keypad.



Datasheet (https://adafru.it/Cdr)

Mini RTD2660H HDMI Driver Board

This is our most compact and least expensive driver board. It only has an HDMI input and doesn't have audio.

This driver has a **scaler** built in. That means you can use it to drive an 800x480 display but set the computer to output 1280x800 and it will scale the display down. However, the image will be stretched out (distorted) if the **aspect ratio** of the scaler doesn't match up. For example, if you have an 800x480 display, the aspect ratio is 1.6 so 1280x720 would look stretched out (1.77 ratio) but 1280x800 would probably look OK (1.66 ratio)

It's the same chipset (RTD2660H) as the larger HDMI/VGA/NTSC/PAL driver, so the interface and functionality is the same (https://adafru.it/Cds)

As it is TTL only, not LVDS, we only have it for our smaller low-resolution screens. Basically, 1024x600 or smaller screens

The nice thing about this driver is it is compact, simple, and can be powered directly from a USB port, the power requirement is basically 5V @ 500mA

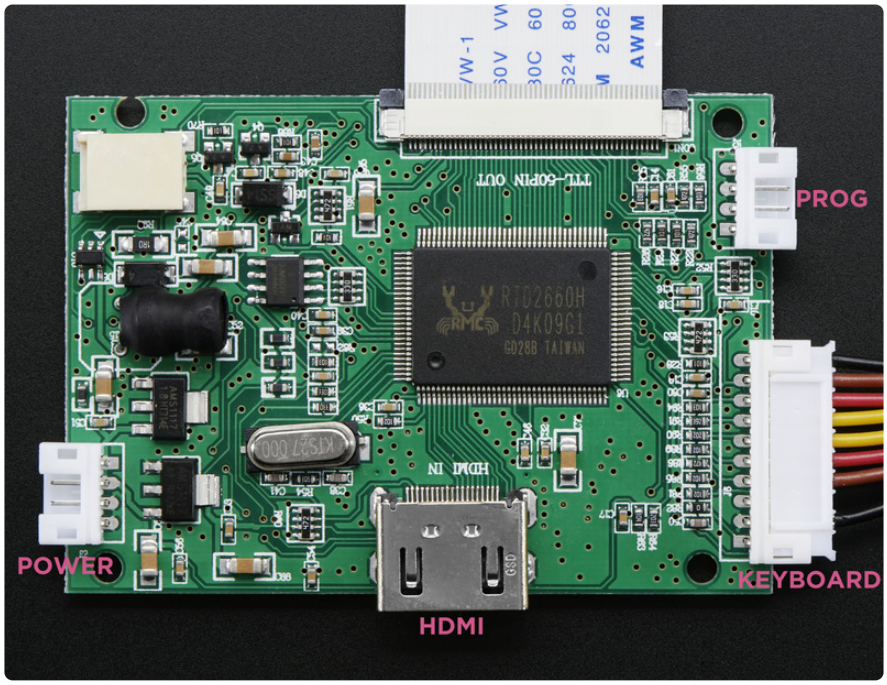
You *can* power this from the USB port of a Raspberry Pi Model B+ or A+ if you turn on high current USB capability

To let the Pi A+/B+ drive a display power over USB, first make sure you have a 2A power supply, with a good quality USB cable, a thin wire power cable is no good. Make sure its 24AWG or smaller, shorter USB cables are better too. Then add

```
max_usb_current=1
```

to **/boot/config.txt**

If you're getting wierd reboots, its likely the power supply and/or power USB cable is not good enough. A powered hub will also solve this problem



The PROG JST connect is generally for factory use only. It's the port we use to program the board before sending it to you

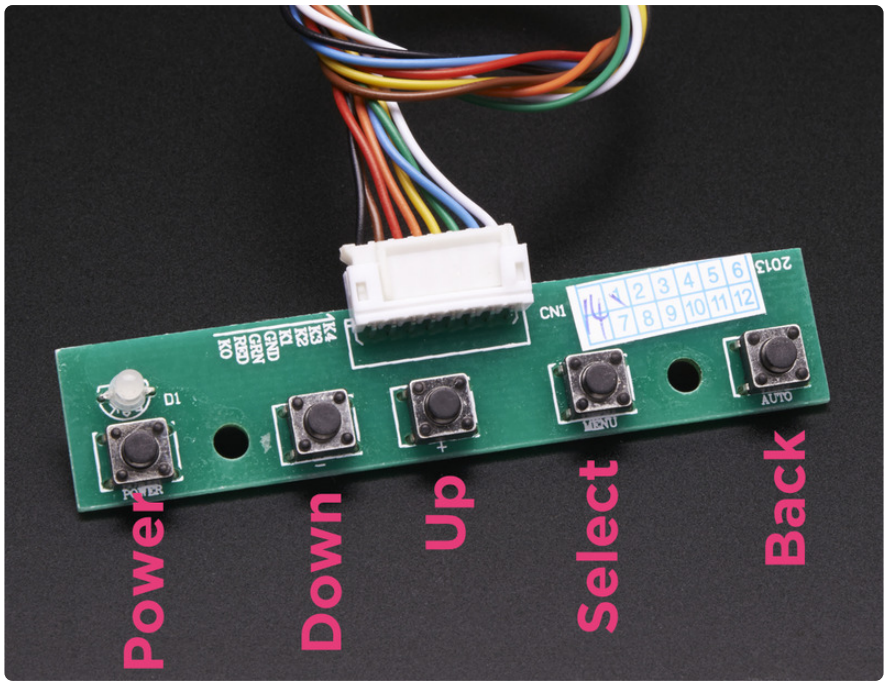
All JST connectors are JST-XH type, 2.5mm pitch.

Power input: 5v USB - current draw depends on the display size a bit, but is basically ~500mA

Datasheet with dimensions and other specifiations (https://adafru.it/dTQ)

Menu Options

Each driver board comes with a few menus of customizable settings. We go through each below, with some helpful pictures, to show you what you're able to easily control!



The keypad buttons help you navigate the display menus and sub-menus.

As shown in the picture above:

- key is **DOWN**
+ key is **UP**
MENU key is **SELECT** (brings you to the next menu or option)
AUTO key is **BACK**

When you first start up, you can use the Auto/Back key to select the input source!

Color Menu



Brightness - Adjust the brightness
Color - Adjust the color
Saturation - Adjust the saturation

OSD - On-screen Display



Language - There are a full range of language options for your display. They are:

English, French, Italian, Mandarin, Cantonese, German, Spanish, Japanese, Korean, and Russian

H Position - Horizontal Position
V Position - Vertical Position
OSD Timeout - Adjust the time for the display to go black.
Transparent - Adjust the OSD (on screen display) menu's transparency against the background image

Function



Reset - Reset settings to factory default
Display Ratio:

- **16:9**
- **Auto**
- **4:3** - compresses image to 4:3 - does not cut off the image!



Sleep - Sleep timer - this will completely shut off the screen at the end of the set time (0-120 minutes)
Blue Screen - On/Off - This changes the color of the screen on start up when you choose your input
Sharpness - Adjust the sharpness from 0 to 100
Mode:

- SYS1 - Makes the text backward from SYS3
- SYS2 - rotates the screen 180°
- SYS3 - Default - has screen situated with bottom toward the cable
- SYS4 - Rotates 180° and makes the text read backward

Keep going down for more options!

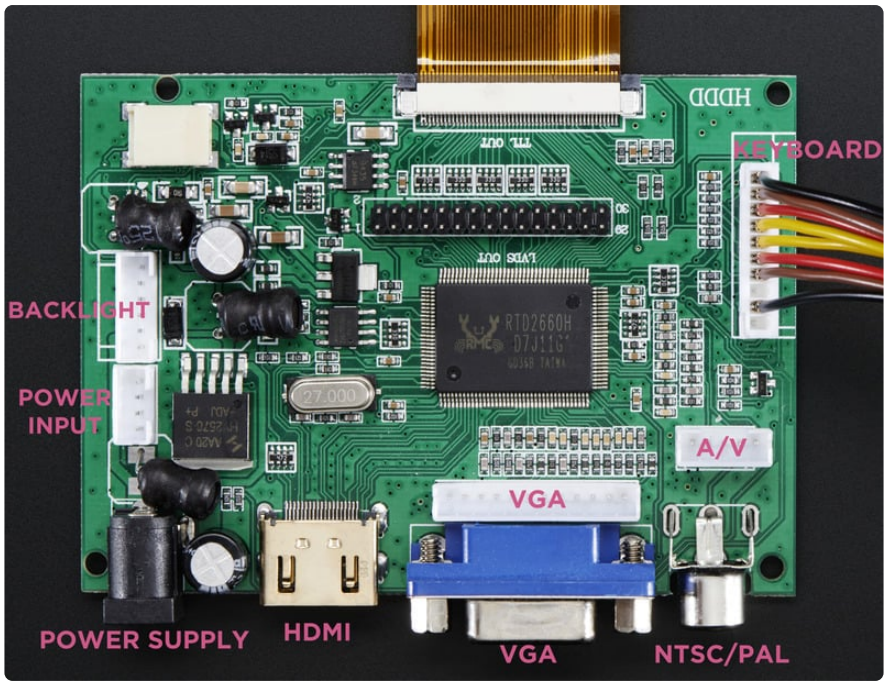


Power Saving - 10s to 60s - how long it takes for the screen to shut off
Burnin - On/Off - a function to prevent screen burn-in (https://adafru.it/dTR)

RTD2660H HDMI/VGA/NTSC/PAL Driver Board

This is our 'workhorse' display driver board. It has multiple inputs and works well with both TTL and LVDS screens. It does not, however, have an audio output.

This driver has a **scaler** built in. That means you can use it to drive an 800x480 display but set the computer to output 1280x800 and it will scale the display down. However, the image will be stretched out (distorted) if the **aspect ratio** of the scaler doesn't match up. For example, if you have an 800x480 display, the aspect ratio is 1.66 so 1280x720 would look stretched out (1.77 ratio) but 1280x768 would probably look OK (1.66 ratio)



The VGA, Power and A/V inputs, the white JST ports are good alternatives to the main inputs if you don't want bulky cables coming out the sides of your driver board.

All the white JST connectors are JST-XH type, 2.5mm pitch.

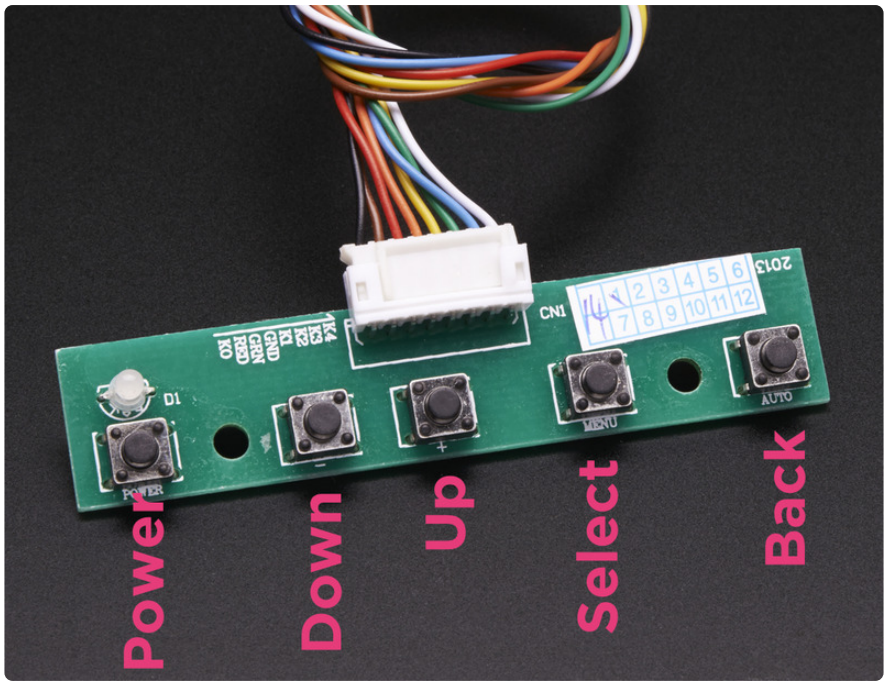
Power Input: In theory, the board datasheet says 5-24V but we found that 9-12V DC works best. There's a switching regulator so current draw will be lower when using higher voltages, and vice versa.

Datasheet (https://adafru.it/dTS) with diagrams

On some of the driver boards, there is an inverting transistor package that is now placed as a resistor (and signal inverted in software). While it's not the most aesthetic solution, the design is fine and these boards are tested and work!

Menu Options

Each driver board comes with a few menues of customizable settings. We go through each below, with some helpful pictures, to show you what you're able to easily control!



The keypad buttons help you navigate the display menus and sub-menus.

As shown in the picture above:

- key is **DOWN**
+ key is **UP**
MENU key is **SELECT** (brings you to the next menu or option)
AUTO key is **BACK**

When you first start up, you can use the Auto/Back key to select the input source!

Color Menu



Brightness - Adjust the brightness
Contrast - Adjust the contrast
Hue - Adjust the hue
Saturation - Adjust the saturation
Color Temp - 9300K, 6500K, User

OSD - On-screen Display



Language - There are a full range of language options for your display. They are:

English, French, Italian, Mandarin, Cantonese, German, Spanish, Japanese, Korean, and Russian

H Position - Horizontal Position
V Position - Vertical Position
OSD Timeout - Adjust the time for the display to go black
Transparent - Adjust the menu's transparency against the background image

Function



Reset - Reset the settings to default
Display Ratio -

- **16:9** - similar to the screen's default setting, does not stretch image
- **Auto**
- **4:3** - compresses image to 4:3 - does not cut off the image! See below for 4:3 ratio



Sleep - this will completely shut off the screen at the end of the set time (0-120 minutes)
Blue Screen - On/Off - This changes the color of the screen on start up when you choose your input
Sharpness - Adjust the sharpness from 0 to 100
Mode

- SYS1 - Makes the text backward from SYS3
- SYS2 - rotates the screen 180°
- SYS3 - Default - has screen situated with bottom toward the cable
- SYS4 - Rotates 180° and makes the text read backward

Keep going down for more options!



Power Saving - 10s to 60s - how long it takes for the screen to shut off
Burnin - On/Off - a function to prevent screen burn-in (https://adafru.it/dTR)

RTD2668 Driver Board w/ Audio

This is our fanciest driver board. It's best for supporting high resolutions, has multiple inputs, and can support HDMI audio! That means you can have a full A/V system with only one data cable. There's a stereo amplifier onboard that can driver 4 ohm speakers directly

You can solder 3W 4 ohm speakers directly to the amp, like this one. (http://adafru.it/1314)

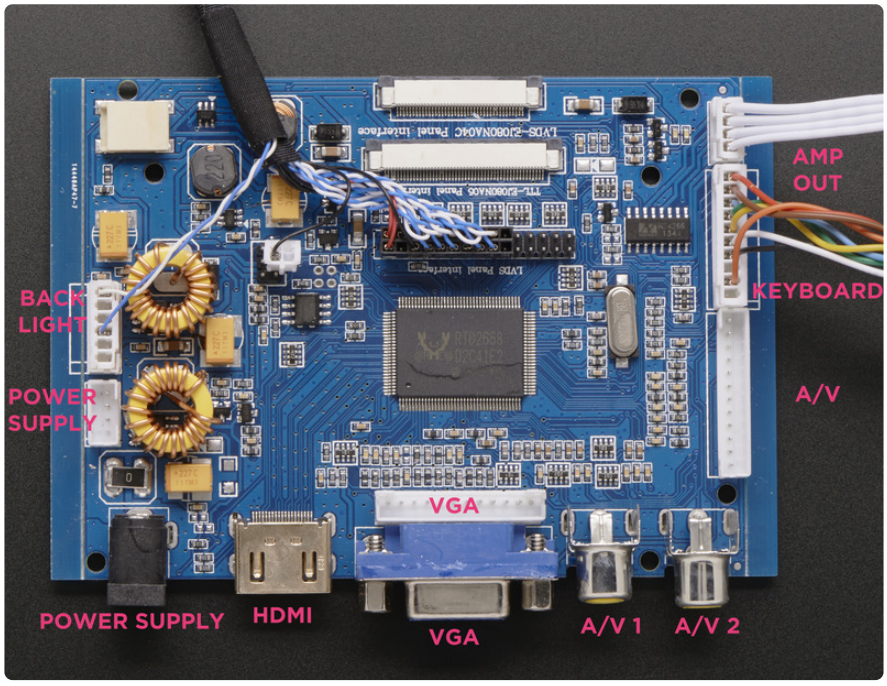
Or use this ready-to-go stereo speaker set, you can just plug the connector in directly! (http://adafru.it/1669)

Audio quality and video resolution

We're not 100% sure of this but it seems like the amount of sound data you can transfer is related to the set HDMI resolution.

Since this driver has a built in video scaler you can display 1280x800 video on a 800x480 display, it'll just be smaller. We noticed that many operating systems/ programs try to push high quality (44.1khz 24 bit) audio and it'll stutter if the resolution is set to something like 800x480

So, if you can set the audio quality in your OS, set it to 44.1KHz 16bit or 22.1KHz 16bit **or** you can just set the resolution of the screen to like 1280x800 or 1280x720 type size. On a Raspberry Pi, resolution is set in /boot/config.txt, on windows, right click on the background and select **Screen Resolution** from the menu



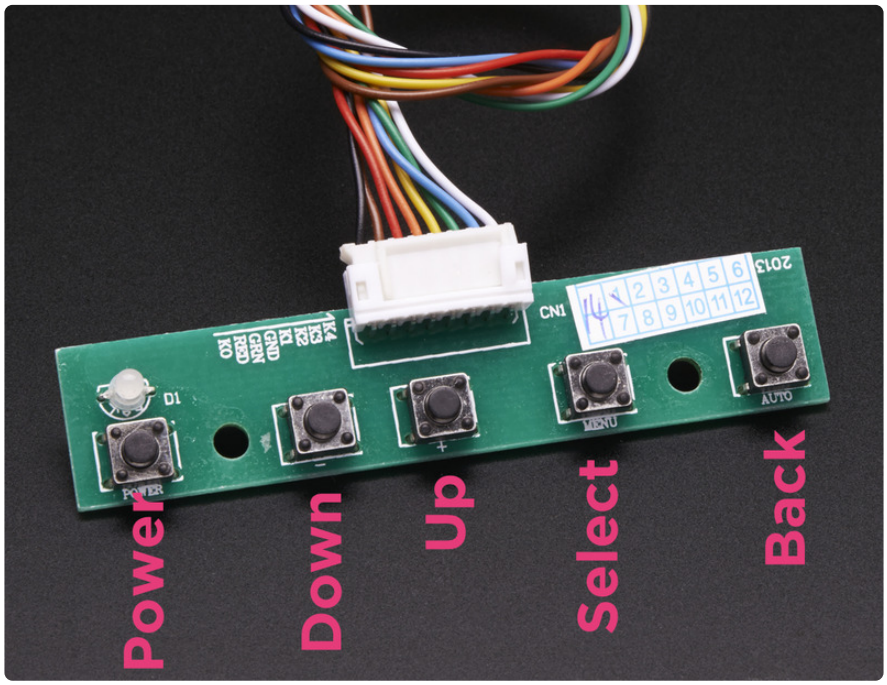
The Power, VGA and A/V JST ports are good alternatives to the main inputs if you don't want bulky cables coming out the sides of your driver board.

Power input: 9-12V DC

Datasheet (https://adafru.it/dU1)

Menu Options

Each driver board comes with a few menues of customizable settings. We go through each below, with some helpful pictures, to show you what you're able to easily control!



The keypad buttons help you navigate the display menus and sub-menus.

As shown in the picture above:

- key is **DOWN**
+ key is **UP**
MENU key is **SELECT** (brings you to the next menu or option)
AUTO key is **BACK**

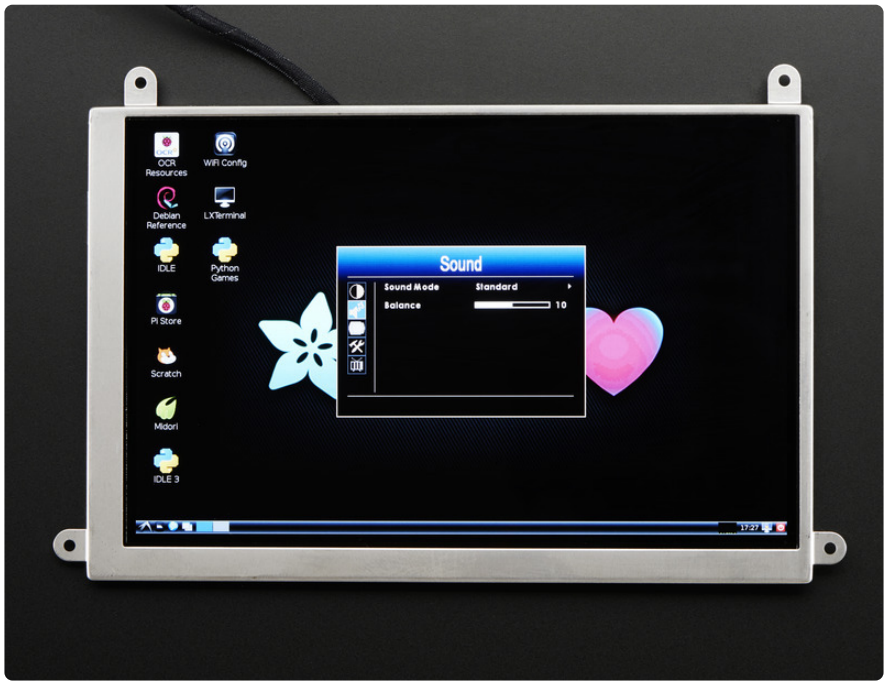
When you first start up, you can use the Auto/Back key to select the input source!

Color Menu



Picture Mode - Bright, Standard, Soft, user
Color Temp - Warm, Normal, Cool, User
DNR (Digital Noise Reduction) - Off, Low, Medium, High

Sound Menu



Sound Mode - Standard, Class, Dance, Live, Pop, Rock, User
Balance - Adjust the sound left/right balance

Function Menu



Language - There are a full range of language options for your display. They are:

English, Mandarin, French, German, Spanish, Portugese, Korean, Russian

OSD Sub-menu:

- **OSD Time Out -** Adjust the time for the display to go black
- **Transparent -** Adjust the menu's transparency against the background image

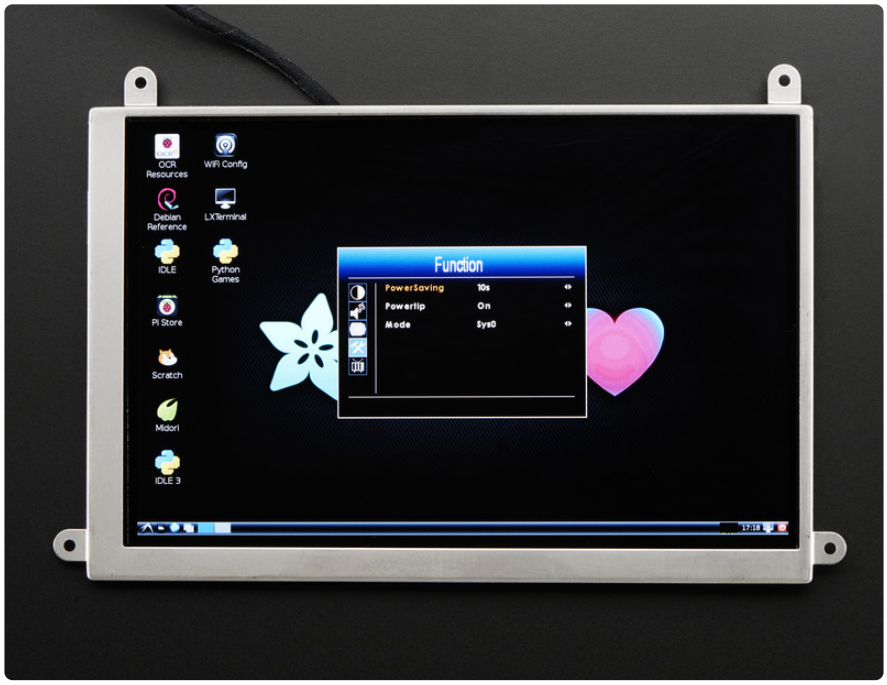
Display Ratio -

- **16:9 -** similar to the screen's default setting, does not stretch image
- **4:3 -** we've found this doesn't effect the image on these displays so not sure what's up with that!
- **Auto**

Reset - Reset the settings to default

Sleep Time - Up to 60 minutes - this will completely shut off the screen at the end of the set time

Blue Screen - On/Off - This changes the color of the screen on start up when you choose your input



Power Saving - 10s to 60s - how long it takes for the screen to shut off
Powertip - no idea what this does
Mode: SYS0, SYS1, SYS2, SYS3 - we've found this doesn't effect the image on these displays

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1667- 7" Display 1280x800 IPS + Speakers Driver Board Menu

The buttons on the bottom read **switch, menu, +, -,** and **power.**

+ increases the volume

- decreases the volume

Switch allows you to change the input. Press **switch** then **menu** to cycle through the input options of AV, VGA, HDMI, and MEDIA. The + button will select the input.

Menu brings up the menu

To navigate the menu options:

+ moves the selector to the right

- moves the selector to the left

Menu selects a menu option

Switch undoes the selection

To increase the bar or move to the right on a selected menu item, press the + button

To decrease a bar or move to the left on a selected menu item, press the - button

While we're unsure of what the board is on this display, it does have different Menu Options.

We go through each below to show you what you're able to easily control.

Note: occassionally, these screens come to us with Mandarin as their default language. To set the language settings to English, power the screen, turn it on, and press the following sequence of buttons:

Menu
+
+
Menu
-
Switch
Power

You must hit Power before unplugging or the changes will not save.

Picture



Picture Mode - Standard, Personal, Vivid, Movie
Contrast - Adjust the contrast
Brightness - Adjust the brightness
Color - Adjust the color
Tint - Adjust the tint
Sharpness - Adjust the sharpness
Color Temp - Normal, Cool, Warm
Noise Reduction - Mid, Low, Off, High

Sound



Sound Mode - Standard, Personal, Music, Movie
Bass - Adjust the bass
Treble - Adjust the treble
Balance - Adjust the balance
AVC - Off/On - Automatic Volume Control

Setting



Language - English, Russian, Portugese, Italian, Spanish, French, German, Chinese

OSD Timer - 5-30 seconds for your On Screen Display to go black
Transparence - Adjust the menu transparency
Overscan - On/Off - When on, some of the image can be cut-off and beyond the scope of the viewable screen.
Reset - Reset to factory settings

Function



Sleep Timer - to 120 minutes - this will completely shut off the screen at the end of the set time
Aspect - Full
4:3 - compresses image to 4:3 but does not cut-off image
Blue Screen - On/Off
MP3 BG Play - On/Off - We're not sure what the BG stands for but this is just a way to play MP3s through your screen's speakers
DLC - Off/On