

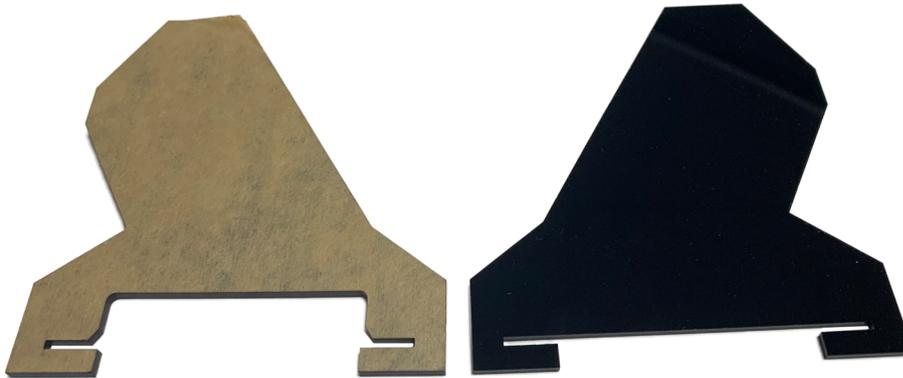
2. MOUNTING BRACKET

Simply follow the following illustrated step-by-step instructions for quick and easy mounting of the bracket.

1. First, loosen the screws of the protective cover and remove it.



2. Now, remove the protective film from the feet.

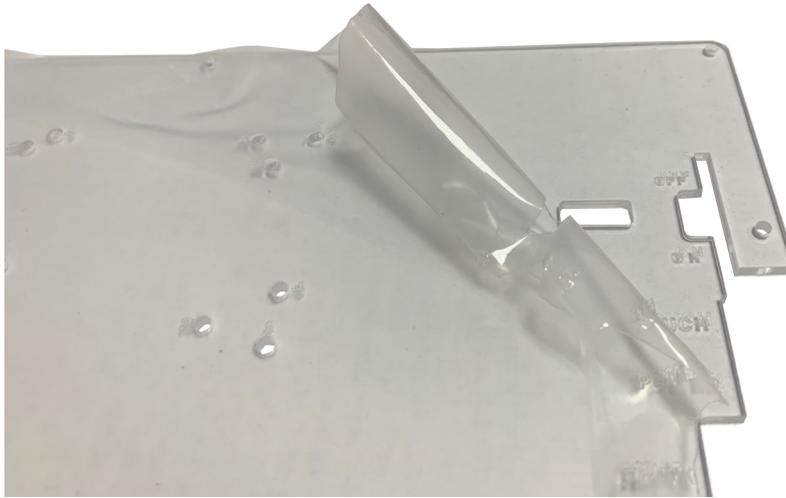


3. Now, you first have to remove the spacers, which are on the screws, with which the board is fixed. Afterwards, you can put the feet on the board by lifting the board. Make sure that the leg with the larger cut-out is placed on the side with the connectors.





4. Now, remove the protective film of the protective cover.



5. Now fix the spacers with the supplied nuts to the openings provided for them. Note that the numbers on the cover represent the different single board computers compatible with the display.



6. After you put the spacers you removed earlier, back on the board, put the cover plate back on the board and fasten the screws.



- Now you can screw your single-board computer onto this plate.



3. USAGE WITH A PC

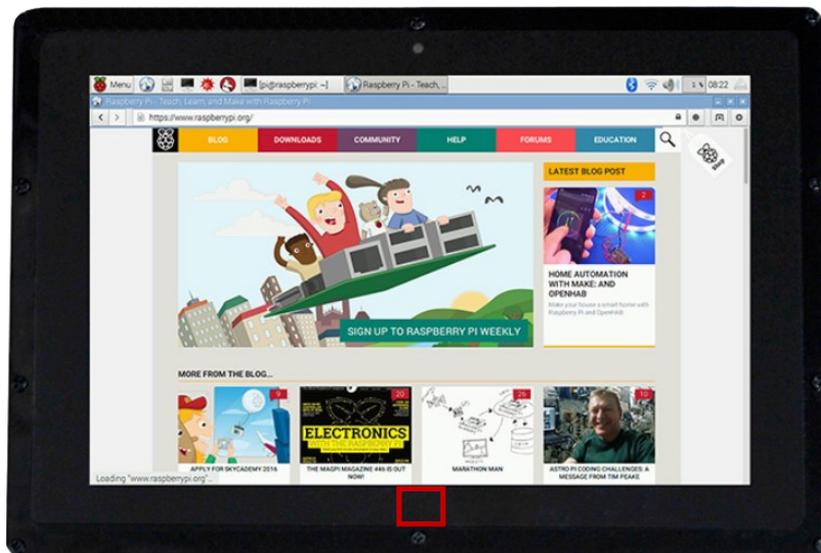
This product supports Windows 7 / 8 / 8.1 / 10 operating systems. For Windows operating systems 8 and above, multi-touch gestures with up to 10 points are supported. For some Windows 7 operating systems, only single-touch gestures are supported.

1. Device connection

Please make sure that the connections are in the correct sequence or the LCD may not work flawlessly.

1. Connect the Power Only port of the LCD to a 5 V and 2.5 A microUSB power supply.
2. Connect the touch port of the LCD to one of the USB ports of your computer.
3. Connect the HDMI port of the LCD to the HDMI port of your computer with an HDMI cable. If multiple screens are registered by your PC, the LCD can only control the cursor of the main screen.

Touching it executes the left-key action of the mouse and holding your finger down executes the right-key action. (You can use also the backlight of the screen with the *backlight adjustment button*, please note the marked position in the following image).



4. USAGE WITH A RASPBERRY PI

1. Installation

Basic installation

For the Windows operating systems on the PC, the resolution of the LCD is automatically identified. Therefore, no further settings of this type can be made. When working with the Raspberry Pi you should set the resolution manually, otherwise, the LCD screen will not work. For more detailed information please read the following section.

First, you should download a current operating system, namely **Raspbian** or **Ubuntu Mate**, which you can download [here](#).

1. Download the image (.zip format) to your PC. After unzipping the file, you will get a file in .img format.
2. Connect a microSD card to your PC and open a program like [Win32 Disk Imager](#).
3. Now select the downloaded image file and the SD card to be written to. Then click on *Write* to write to the microSD card.
4. When the process is complete, open the *config.txt* file in the root directory of the microSD card and add the following lines at the end of the file. Then save the modifications and remove the microSD card.

```
max_usb_current=1
hdmi_group=2
hdmi_mode=1
hdmi_mode=87
hdmi_cvt 1280 800 60 6 0 0 0
```

Note

The memory size of your microSD card should be more than 4 GB. In this operation, you will also need a microSD card reader, which must be purchased separately.

Rotation of the display with touch function

Display Rotation

To rotate the image, you need to edit the *config.txt*.

```
sudo nano /boot/config.txt
```

The following command must now be entered at the end of the file:

```
display_rotate=1
```

Note:

Depending on how you want to rotate the display, you must enter the following values:

90° - *display_rotate=1*

180° - *display_rotate=2*

270° - *display_rotate=3*

If you want to have the initial state, you must remove the command from the *config.txt*.

Touch Rotation:

If the screen is rotated, the touch function is not automatically rotated, it must be adjusted **separately**.

First you have to install a new package, if it is not already installed.

```
sudo apt-get install xserver-xorg-input-libinput
```

Then we have to create a new folder:

```
sudo mkdir /etc/X11/xorg.conf.d
```

Now you must copy a file in this folder:

```
sudo cp /usr/share/X11/xorg.conf.d/40-libinput.conf /etc/X11/xorg.conf.d
```

As soon as the file has been copied, you have to edit the touch function:

```
sudo nano /etc/X11/xorg.conf.d/40-libinput.conf
```

You will now have a preconfigured file open. You must enter a new command under the entry

Identifier "libinput touchscreen catchall"

, which is marked in the following picture.

```
pi@raspberrypi: ~
File Edit Tabs Help
GNU nano 2.7.4 File: /etc/X11/xorg.conf.d/40-libinput.conf
# Match on all types of devices but tablet devices and joysticks
Section "InputClass"
    Identifier "libinput pointer catchall"
    MatchIsPointer "on"
    MatchDevicePath "/dev/input/event*"
    Driver "libinput"
EndSection

Section "InputClass"
    Identifier "libinput keyboard catchall"
    MatchIsKeyboard "on"
    MatchDevicePath "/dev/input/event*"
    Driver "libinput"
EndSection

Section "InputClass"
    Identifier "libinput touchpad catchall"
    MatchIsTouchpad "on"
    MatchDevicePath "/dev/input/event*"
    Driver "libinput"
EndSection

Section "InputClass"
    Identifier "libinput touchscreen catchall"
    MatchIsTouchscreen "on"
    Option "CalibrationMatrix" "0 -1 1 1 0 0 0 0 1"
    MatchDevicePath "/dev/input/event*"
    Driver "libinput"
EndSection

Section "InputClass"
    Identifier "libinput tablet catchall"
    MatchIsTablet "on"
    MatchDevicePath "/dev/input/event*"
    Driver "libinput"
EndSection

^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell ^_ Go To Line
```

Note:

Depending on how you want to rotate the display, you must enter the following values :

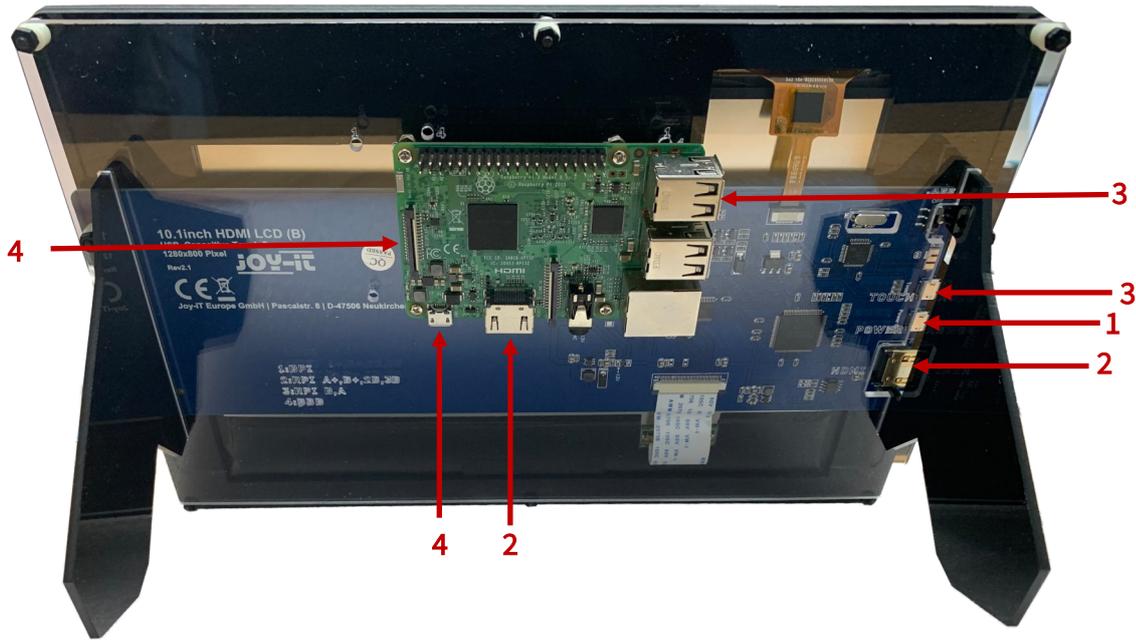
- 90° - *Option "CalibrationMatrix" "0 1 0 -1 0 1 0 0 1"*
- 180° - *Option "CalibrationMatrix" "-1 0 1 0 -1 1 0 0 1"*
- 270° - *Option "CalibrationMatrix" "0 -1 1 1 0 0 0 0 1"*

If you want to have the initial state, you simply remove the command.

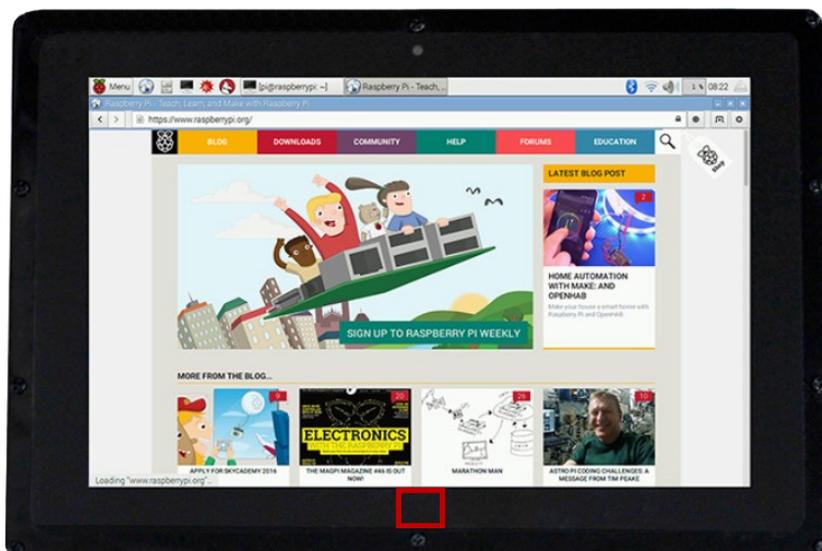
As soon as you are finished, the Raspberry Pi must be restarted. It should then restart with the setting you have set.

```
sudo reboot
```

2. Device connection



1. Connect *Power Only Interface* of the LCD to a 5 V 2.4 A microUSB power supply.
(Normally, the LCD will reset the output on the display and perform a self test).
2. Connect the HDMI interface of the LCD with the HDMI interface of your Raspberry Pi with a HDMI cable.
3. Connect the touch interface of the LCD to one of the USB interfaces of your Raspberry Pi.
4. Insert a microSD card into the card socket of the Raspberry Pi, connect your Raspberry Pi to the power supply and then switch on the Pi.
(Now you can adjust the backlight of the LCD with the *backlight adjustment button*. See the marking in the following picture.)



5. USAGE WITH A BANANA PI

1. Working with Raspbian OS

Install the image file [Raspbian for Banana Pi](#). This image file supports BananaPi Pro and BananaPi.

1. Download the packed image file to your PC. After extracting, you will receive a file with the extension .img.
2. Connect a microSD card to your PC and format the card with the program [Win 32 Disk Imager](#).
Note: The memory size of your microSD card should be more than 4GB.
3. Start the program *Win 32 Disk Imager* and select the image file and also the microSD card which should be written.
Then click the *Write* button to write the image on the microSD card.

2. Device connection

1. Connect the LCD with the HDMI interface of the Banana Pi.
2. Connect the touch interface of the LCD with a USB interface of the Banana Pi.
3. Connect the *Power Only Interface* of the LCD with a 5 V 2.5 A microUSB power supply.

3. Loading the WiFi driver

Compared to the Banana Pi, the BananaPi Pro has an additional WiFi module. If you have a BananaPi Pro, you can use SSH to connect it. The following command can be used to load the WiFi drivers:

```
sudo modprobe ap6210
```

6. OTHER INFORMATION

Our Information and Take-back Obligations according to the German Electronic Law (ElektroG)



Symbol on Electrical and Electronic Products:

This crossed-out bin means that electrical and electronic products do **not** belong into the household waste. You must hand over your old appliance to a registration place. Before you can hand over the old appliance, you must remove used batteries and replacement batteries which are not enclosed by the device.

Return Options:

As the end user, you can hand over your old appliance (which has essentially the same functions as the new one bought with us) free of charge for disposal with the purchase of a new device. Small devices, which do not have outer dimensions bigger than 25 cm can be handed in for disposal independently of the purchase of a new product in normal household quantities.

1. Possibility of return at our company location during our opening hours

Simac Electronics Handel GmbH, Pascalstr. 8, D-47506 Neukirchen-Vluyn

2. Possibility of return nearby

We will send you a parcel stamp with which you can send us your old appliance free of charge. For this possibility, please contact us via e-mail at service@joy-it.net or via telephone.

Information about Package:

Please package your old appliance safe for transport. Should you not have suitable packaging material or you do not want to use your own material, you can contact us and we will send you an appropriate package.

7. SUPPORT

If any questions remained open or problems may arise after your purchase, we are available by e-mail, telephone and ticket support system to answer these.

E-Mail: service@joy-it.net

Ticket-system: <http://support.joy-it.net>

Telephone: +49 (0)2845 98469 – 66 (10 - 17 o'clock)

For further information visit our website:

www.joy-it.net