

Joy-it 3.2 Raspberry Pi Touch Display Instructions

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Joy-it 3.2 Raspberry Pi Touch Display Instructions

Specifications

- Controller: XPT2046
- Resolution:
 - 3.2 Display: 320 x 240
 - 3.5 Display: 480 x 320
- Colors: 65,536

Product Usage Instructions

Connection

Plug the 3.2 / 3.5 TFT display onto the Raspberry Pi so that it is plugged into the first 26 pins of the GPIO connector strip. The backlight of the display should then light up.

Installation of the Software

Install the TFT image on your SD card using the Raspberry Pi Imagers. You can download the images for the 3.2 display and the 3.5 display from the provided links. Use the Raspberry Pi Imager to select and write the appropriate image to your SD card. You can also create a user, activate SSH, set up WLAN, etc., during the

writing process.

Using the Buttons on the 3.2 Display

The 3.2 display has three additional buttons on its edge that can be controlled via GPIO pins on the Raspberry Pi. Each button corresponds to a GPIO pin for input signals and control.

Calibration of the Touchscreen

To calibrate the touchscreen, download the calibration tool by running the command 'sudo apt install xinput-calibrator' in a terminal window. Start the calibration process under Preferences > Calibrate Touchscreen.

Rotation of the Display

You can rotate the display using software settings. Navigate to the software folder and use the command 'sudo rotate.sh ' to set the rotation angle (0, 90, 180, or 270).

GENERAL INFORMATION

Dear customer,
thank you for choosing our product. In the following, we will show you what you need to bear in mind during commissioning and use.

Should you encounter any unexpected problems during use, please do not hesitate to contact us.

These instructions were developed and tested for the Raspberry Pi 5 and the Bookworm OS operating system. It has not been tested with newer operating systems or hardware.

OVERVIEW

CONNECTION

Plug the 3.2" / 3.5" TFT display onto the Raspberry Pi so that it is plugged onto the first 26 pins of the GPIO connector strip. The backlight of the display should then light up.

INSTALLATION OF THE SOFTWARE

Install the TFT image on your SD card using the Raspberry Pi Imager, which you can download from the following links:

For the 3.2" display you can find the images with Raspberry Pi OS Bookworm here.

For the 3.5" display you can find the images with Raspberry Pi OS Bookworm here.

With the Raspberry Pi Imager, you can select a downloaded image under Operating system (OS) → Use custom. Now select the appropriate image and you can write it directly to your SD card. With the Raspberry Pi Imager you can already create a user during writing or e.g. activate SSH, set up WLAN etc.

Manual installation

If you are already using a different Raspberry Pi OS image and would like to expand it with the 3.2" / 3.5" touchscreen TFT, you can also install the modules on your system at a subsequent stage. For installation we use

the LCD-show repository, which is licensed under the GNU General Public Licence Version 2.
To do this, you must first execute the following commands in a terminal:

To install the driver, execute the following command. Here you must differentiate whether you are using the 3.2" TFT or the 3.5" TFT.

3.2" TFT:

3.5" TFT:

Your Raspberry Pi will now restart.

You have now successfully set up your TFT. You can now set a small screen as default under Preferences → Appearance Settings → Defaults. This setting makes the image on the TFT more legible.

USING THE BUTTONS ON THE 3.2"

There are three additional buttons on the edge of the 3.2" display. These can be controlled and used via the GPIO. When a button is pressed, the applied signal is pulled to ground (Active_LOW).

The pin assignment for displays V1 and V2 is as follows:

On the V3 display, the backlight can be controlled separately using a GPIO pin.

The pin assignment for the V3 is therefore as follows:

CALIBRATION OF THE TOUCHSCREEN

If it is necessary to calibrate the touchscreen, this can be carried out using the following steps.

First of all, the calibration tool must be downloaded. To do this, open a terminal window and enter the following command:

You can now start the calibration under Preferences → Calibrate Touch-screen.

Four points now light up one after the other, which must be pressed to calibrate the display.

Four calibration values are then displayed in the terminal, which must be entered in the 99-calibration.conf file.

To do this, open the file:

Enter the values (which will be displayed after calibration) in the following line:

MinX corresponds to the first value, MaxX to the second value, MinY to the third value and MaxY to the fourth value. After saving the file and restarting, the new calibration data is applied.

ROTATION OF THE DISPLAY

It is possible to rotate the display using the software already installed. To do this, you must navigate to the software folder again.

You can now use the following command to rotate the display. The rotation can be set using the values 0, 90, 180 and 270.

OTHER INFORMATION

Our information and take-back obligations according to the Electrical and Electronic Equipment Act (ElektroG) Symbol on electrical and electronic equipment:

This crossed-out dustbin means that electrical and electronic appliances do not belong in the household waste. You must return

the old appliances to a collection point.

Before handing over waste batteries and accumulators that are not enclosed by waste equipment must be separated from it.

Return options:

As an end user, you can return your old device (which essentially fulfills the same function as the new device purchased from us) free of charge for disposal when you purchase a new device.

Small appliances with no external dimensions greater than 25 cm can be disposed of in normal household quantities independently of the purchase of a new appliance.

Possibility of return at our company location during opening hours: SIMAC Electronics GmbH, Pascalstr. 8, D-47506 Neukirchen-Vluyn, Germany

Possibility of return in your area:

We will send you a parcel stamp with which you can return the device to us free of charge. Please contact us by e-mail at Service@joy-it.net or by telephone.

Information on packaging:

If you do not have suitable packaging material or do not wish to use your own, please contact us and we will send you suitable packaging.

SUPPORT

If any questions remain 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 9360 – 50 (Mo. – Th.: 09:00 – 17:00 o'clock

Fr.: 09:00—14:30 o'clock)

For further information visit our website:

www.joy-it.net

FAQ

Q: Are these instructions compatible with newer Raspberry Pi models or operating systems?

A: These instructions were developed and tested for Raspberry Pi 5 and Bookworm OS. They have not been tested with newer operating systems or hardware.

Documents / Resources

	<p>Joy-it 3.2 Raspberry Pi Touch Display [pdf] Instructions 3.2 Raspberry Pi Touch Display, 3.2, Raspberry Pi Touch Display, Pi Touch Display, Touch Display, Display</p>
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References

- [ITnet | Servizi di Colocation e Cloud](#)
- [Joy-IT Helpdesk](#)
- [Joy-IT For Makers and Professionals | Joy-IT](#)
- [GitHub - goodtft/LCD-show: 2.4" 2.8"3.2" 3.5" 5.0" 7.0" TFT LCD driver for the Raspberry Pi 3B+/A/A+/B/B+/PI2/ PI3/ZERO/ZERO W](#)
- [GitHub - goodtft/LCD-show: 2.4" 2.8"3.2" 3.5" 5.0" 7.0" TFT LCD driver for the Raspberry Pi 3B+/A/A+/B/B+/PI2/ PI3/ZERO/ZERO W](#)
- [GNU General Public License v2.0 - GNU Project - Free Software Foundation](#)
- [Raspberry Pi OS – Raspberry Pi](#)
- [User Manual](#)

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