Manuals+ — User Manuals Simplified.

JOY-iT RB-TFT1.8 1,8 " TFT-Display User Manual

Contents [hide]

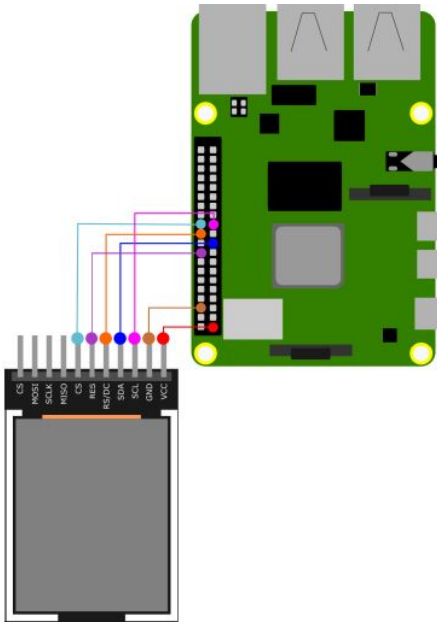### JOY-iT RB-TFT1.8 1,8 " TFT-Display

GENERAL INFORMATION

Dear customer, thank you for choosing our product. In the following, we will show you how to use this device. Should you encounter any unexpected problems during use, please do not hesitate to contact us.

USAGE WITH RASPBERRY PI

Connection

TFT	Raspberry Pi
VCC	3,3 V

GND	GND
SCL	GPIO 11 (SCLK)
SDA	GPIO 10 (MOSI)
RS/DC	GPIO 25

|	
RES	GPIO 24
CS	GPIO 8 (CE0)

On the back of the display is an SD card slot, which can be accessed with the other pins.

Installation

We use with the Raspberry Pi the library Adafruit_CircuitPython _RGB_Display from Adafruit, which was published under the MIT-License. First, install pip so that you can perform all installations without any problems. To do this, run the following command in your console. sudo apt-get installs python3-pip Now enable SPI on your Raspberry Pi. To do this, execute the following command. sudo Raspi-config
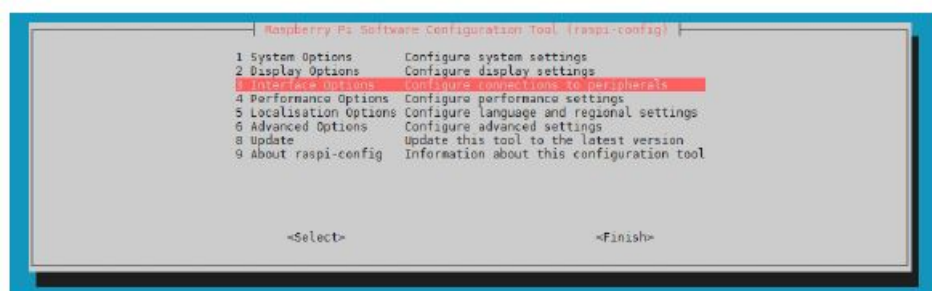
Now go to 1 Interface Options → P4 SPI.
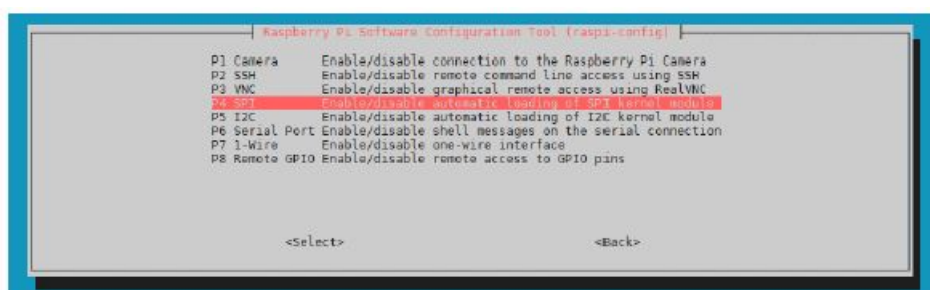
Answer the question Would you like the SPI interface to be enabled? with <Yes> to activate SPI.

Now install the library using the following commands.

- sudo pip3 install Adafruit-circuit python-RGB-display
- sudo apt-get install fonts-Dejavu
- sudo apt-get install python3-Pii

Code example
We provide you with a sample code that allows you to show an image on the display. To do this, first, download the following file.

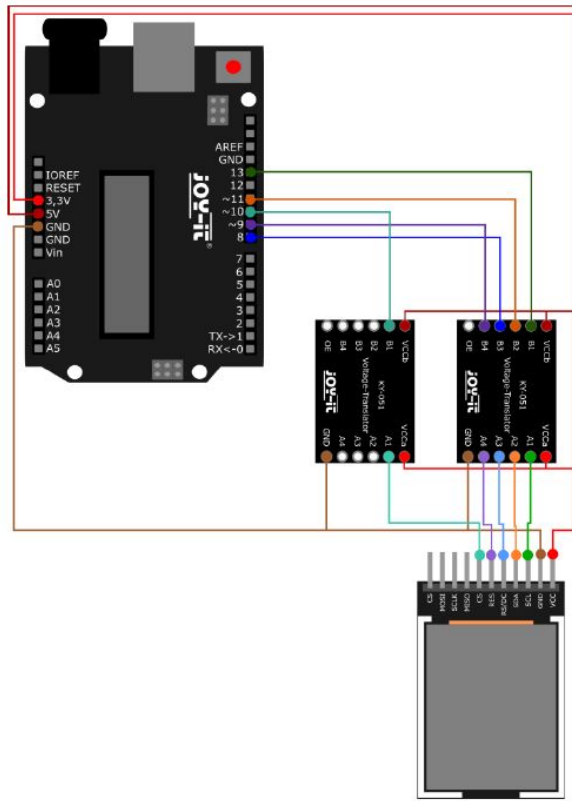**wget https://www.joy-it.net/files/files/Produkte/RB-TFT1.8/RB-TFT1.8_Codeexample_RaspberryPi.zip**

You unpack them with the following command. Make sure that you are in the correct file path.

- unzip RB-TFT1.8_Codeexample_RaspberryPi.zip
- cd RB-TFT1.8_Codeexample_RaspberryPi python3 RB-TFT1.8.py
- Your display should now show you an image.
- If your displayed image is shifted in the display (a pixel line can be seen), you can adjust the software in line 41 by means of the x_offset and y_offset, so that the image is correctly displayed to you.

USAGE WITH ARDUINO

The screen has a logic level of 3.3 V, which means that a voltage converter is required for use with the Arduino. Using it without a voltage converter can cause damage to the TFT. In our example codes, we use two COM-KY051VT.

Connection 3.1.1 Usage without SD card slot

Arduino	COM-KY051VT 1	COM-KY051VT 2	TFT
3,3 V	VCCa	VCCa	VCC
5 V	VCCb	VCCb	–
GND	GND	GND	GND
Pin 13	B1	–	–

–	A1	–	SCL
Pin 11	B2	–	–
–	A2	–	SDA
Pin 8	B3	–	–
–	A3	–	RS/DC
Pin 9	B4	–	–
–	A4	–	RES
Pin 10	–	B1	–
–	–	A1	CS

–	–	–	MISO
–	–	–	SCLK
–	–	–	MOSI
–	–	–	CS

Usage with SD card slot

Arduino	COM-KY051VT 1	COM-KY051VT 2	TFT
3,3 V	VCCa	VCCa	VCC

5 V	VCCb	VCCb	–
GND	GND	GND	GND
Pin 13	B1	–	–
–	A1	–	SCL
Pin 11	B2	–	–
–	A2	–	SDA
Pin 8	B3	–	–
–	A3	–	RS/DC
Pin 9	B4	–	–
–	A4	–	RES
Pin 10	–	B1	–
–	–	A1	CS
Pin 12	–	B2	–
–	–	A2	MISO
–	A1	–	SCLK

| –	A2	–	MOSI
Pin 4	–	B3	–
–	–	A3	CS

Code example

- **3.2.1 Code example without SD card** For the code example, we use the library Adafruit-ST7735-Library from Adafruit, which is published under the MIT-Lizenz. You can find and install it in your Arduino IDE under Sketch → Include Library → Manage Libraries. Now, select a sample code from File → Examples → Adafruit ST7735 and ST7789 Library. In our case graphics. There, comment line 89 with // and uncomment line 90 by removing // at the beginning of the line. However, before you press the Upload button, make sure that you have set the Board and Port correctly under Tools.
- **3.2.2 Code example with SD** card For this code example, an SD card is used, which can be inserted on the back of the display. For the code example, we use the library Adafruit_ImageReader from Adafruit, which is published under the BSD-Lizenz. You can find and install it in your Arduino IDE under Sketch → Include Library → Manage Libraries. Make sure that you also install all dependencies. Now download an image here, which you have to save on the SD card for the display. Now insert the SD card into the SD card slot. Now download our provided sketch here. However, before you press the Upload button, make sure that you have set the Board and Port correctly under Tools.
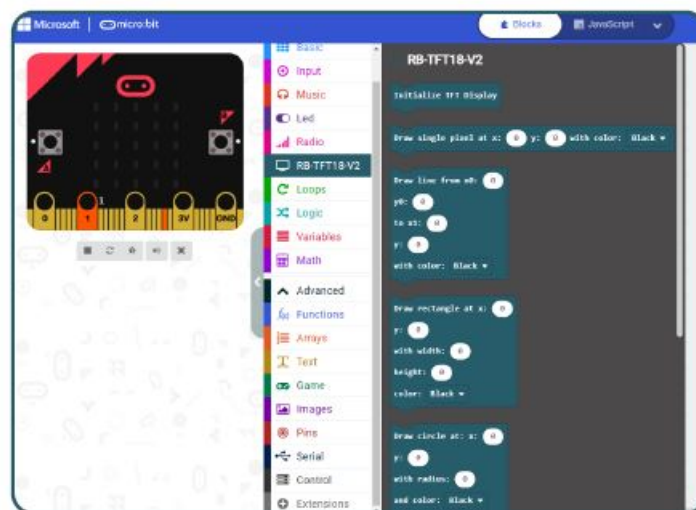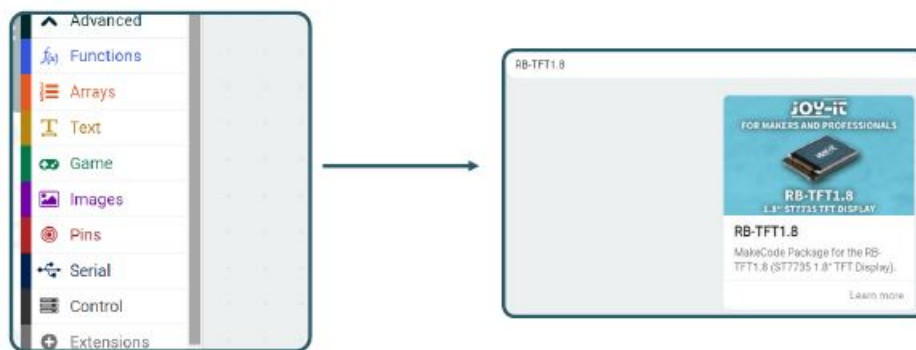

USAGE WITH MICRO:BIT

Connection
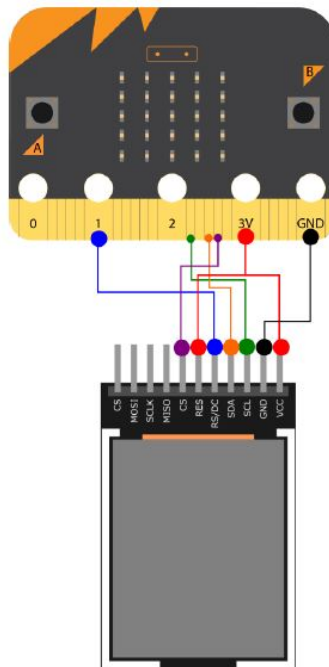
Code example For the micro: bit we use MakeCode, which you can open in your browser here. For the micro: bit we provide the library RB-TFT1.8, which is published under the MIT-License. In MakeCode you can load the blocks into your project under Advanced → Extensions. There you can search for RB-TFT1.8 and select it.

We provide you with a sample code, which you can download here . You load the code on the micro: bit by saving the file on the micro:bit.

OTHER INFORMATION

Our information and take-back obligations according to the Electrical and Electronic Equipment Act (ElektroG)

- **The 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 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 there are still any issues pending or problems arising after your purchase, we will support you by e-mail, telephone, and with our ticket support system.**
- **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 please visit our website: www.joy-it.net**

Documents / Resources

JOY-iT RB-TFT1.8 1,8 " TFT-Display [pdf] User Manual
RB-TFT1.8, 1-8 TFT-Display