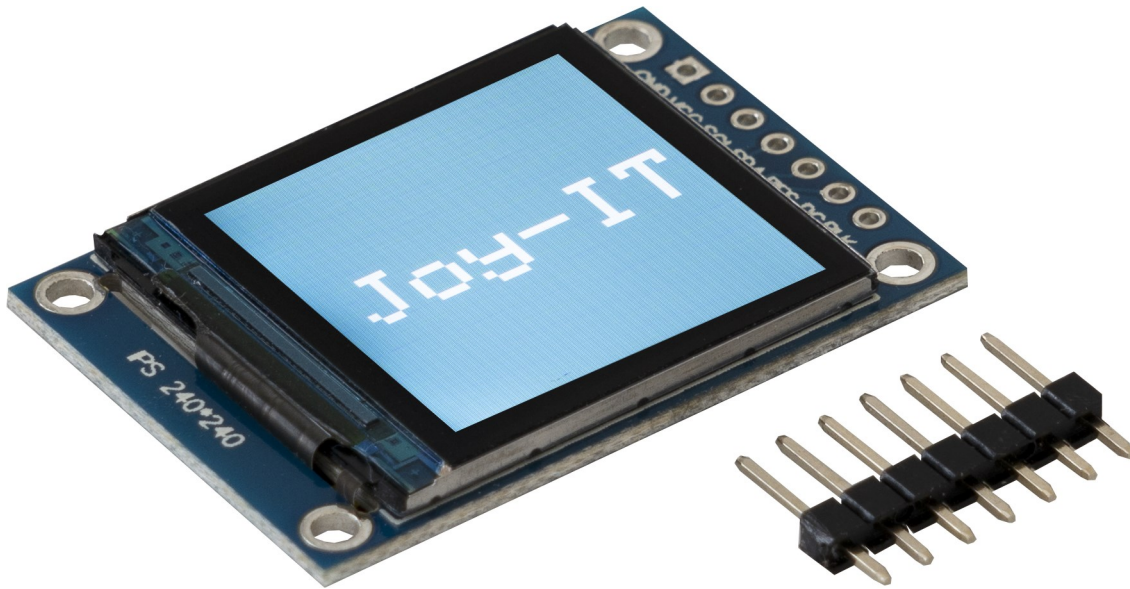


1,3 " HD-IPS-TFT-LCD DISPLAY

SBC-LCD01



1. GENERAL INFORMATION

Dear customer,

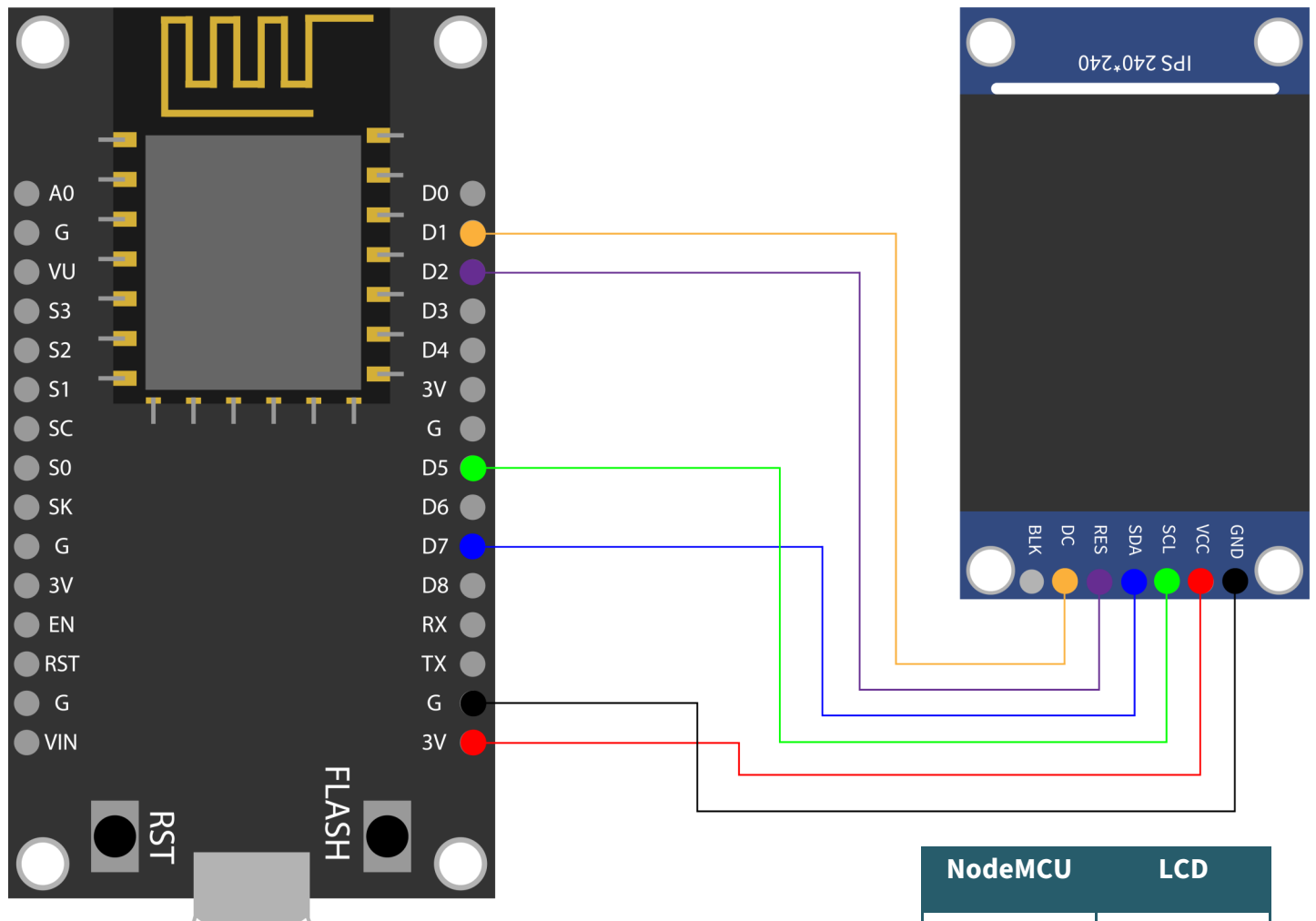
thank you for choosing our product. In the following, we will show you how to use this device.

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

Note that before you can use the display, you must solder the pin header!

2. USAGE WITH THE NODEMCU

1. Connection



2. Code example

The SBC-LCD01 has a logic level of 3.3V, making a NodeMCU recommended for this application. To use a NodeMCU with the Arduino IDE, you must first add the board. To do this click on **File** → **Preferences**. There you add the following link **Additional board administrator URLs**.

http://arduino.esp8266.com/stable/package_esp8266com_index.json

Now you can download the library in the Arduino IDE. There you go to the **library manager**, which you can find under **Sketch** → **Include library ...** → **Manage libraries ...**. There you install **Adafruit ST7735 and ST7789 Library** and the **Adafruit GFX Library** using the search bar. Now you can download a sample code [here](#), where an image is displayed on the screen.

Make sure that you select the NodeMCU as **board** also under **Tools**, as well as the correct **port**.

Please note, if you want to upload the code, you have to keep the flash button pressed!

NodeMCU	LCD
D1 (GPIO 5)	DC
D2 (GPIO 4)	RES
D5 (SCLK)	SCL
D7 (MOSI)	SDA
G	GND
3V	VCC

```
#include <Adafruit_GFX.h>
#include <Adafruit_ST7789.h>
#include <SPI.h>

#define CS    -1 // Declaration of Chip Select
#define DC     5 // Declaration of Data / Command Pin
#define RST    4 // Declaration of RESET Pin

// Initialize display
Adafruit_ST7789 lcd = Adafruit_ST7789(CS, DC, RST);

void setup(void) {

  lcd.init(240, 240, SPI_MODE2);
  lcd.setRotation(1);

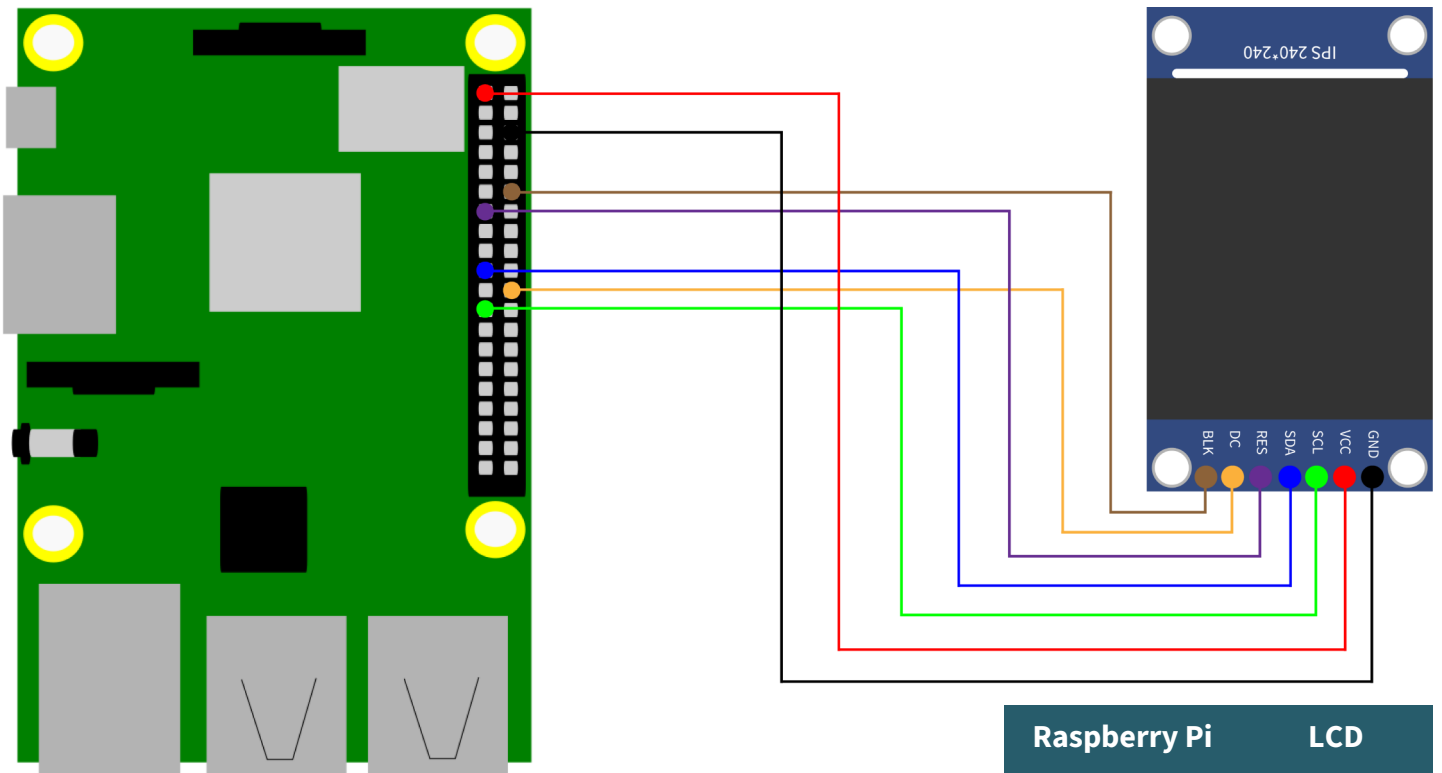
  delay(500);

  // fill Display with a colour and a String
  lcd.fillScreen(0x22ED);
  lcd.setCursor(20, 100);
  lcd.setTextColor(ST77XX_WHITE);
  lcd.setTextSize(6);
  lcd.print("Joy-IT");
}

void loop() {
  // empty
}
```

3. USAGE WITH THE RASPBERRY PI

1. Connection



Raspberry Pi	LCD
Pin 22 (GPIO 25)	DC
Pin 13 (GPIO 27)	RES
Pin 23 (SCLK)	SCL
Pin 19 (MOSI)	SDA
GND	GND
3,3V	VCC
Pin 12	BLK

2. Code example with SPI

We offer you a sample code for the Raspberry Pi, which you can use to show images and text on the display.

First enter the following command to enable SPI on your Raspberry Pi.

```
sudo raspi-config
```

There you activate SPI under **5 Interfacing Options** → **P4 SPI**. Then run the following command to restart the Raspberry Pi to put the changes into effect.

```
sudo reboot
```

For this code example, use the [JoyIT_st7789vw](#) library provided by us. To do this, first download the repository:

```
sudo apt install git
```

```
git clone https://github.com/joy-it/JoyIT_st7789vw  
cd JoyIT_st7789vw
```

Now create a virtual environment with the following commands:

```
python -m venv --system-site-packages env  
source env/bin/activate
```

Now install the library with the following command.

```
pip install JoyIT_st7789vw
```

You can now execute the sample code with the following command.

```
python3 examples/example.py
```

4. FURTHER INFORMATION

Our information and redemption obligation according to the Electrical and Electronic Equipment Act (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 office. Before you can hand over the old appliance, you must remove used batteries and accumulators which are not enclosed by the device.

Return options :

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

Possibility of restitution at our company location during our opening hours:

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

Possibility of restitution nearby :

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

Information about packaging:

Please package your old appliance safe during transport. Should you not have a 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.

5. SUPPORT

If any questions remain open or problems arise after your purchase, we are available by email, telephone and ticket support system to answer these.

E-Mail: service@joy-it.net

Ticket-System: <https://support.joy-it.net>

Telephone: +49 (0)2845 9360 – 50

For more information visit our website:

www.joy-it.net