# OLED DISPLAY 128X64

SBC-OLED01


1. GENERAL INFORMATION

Dear customer,
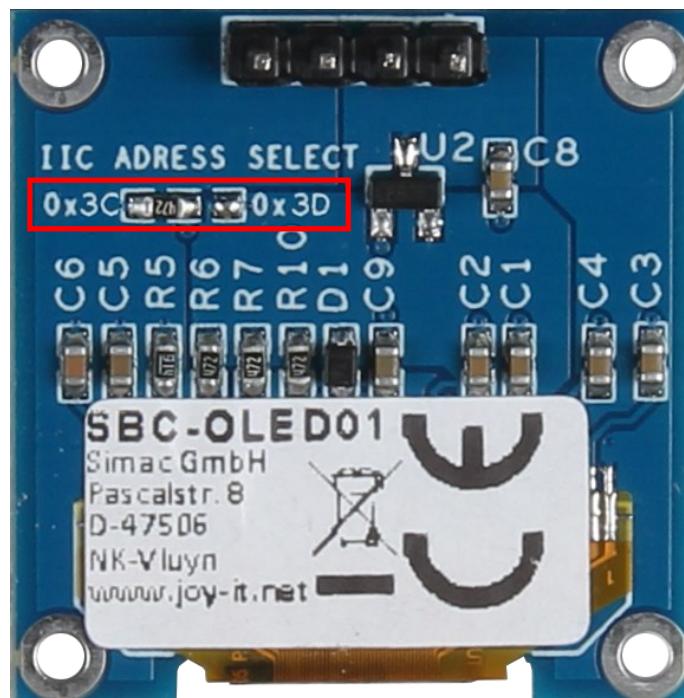
Thank you for purchasing our product. In the following, we will show you which things should be noted during the use.

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

On the backside of the OLED display is a resistor, with which you can set the I2C address of the display to 0x3D. In the delivery state, the display is accessible via the I2C address 0x3C.
To do change the address, re-solder the resistor marked in the figure.
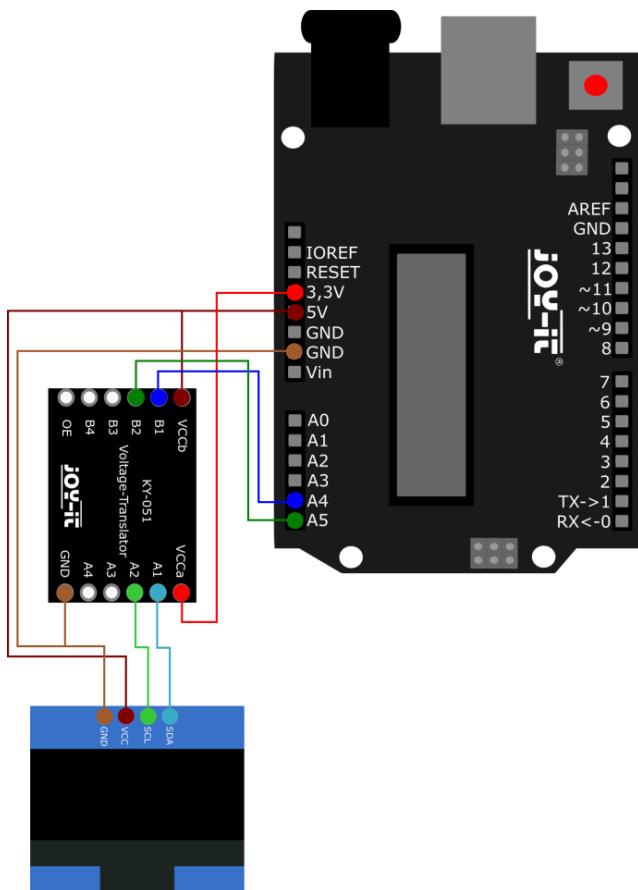
3.1 Connection

> ℹ️ The SBC-OLED01 has a logic level of 3.3V. Therefore, when using an Arduino Uno, a voltage translator must be used, otherwise it may cause damage to the display. In our example, we use the **COM-KY051VT**.

| OLED	Arduino	Voltage translator
GND	GND	GND
VCC	5V	VCCb
-	3,3 V	VCCa
-	A5	B2
SCL	-	A2
-	A4	B1
SDA	-	A1

3.2 Code example
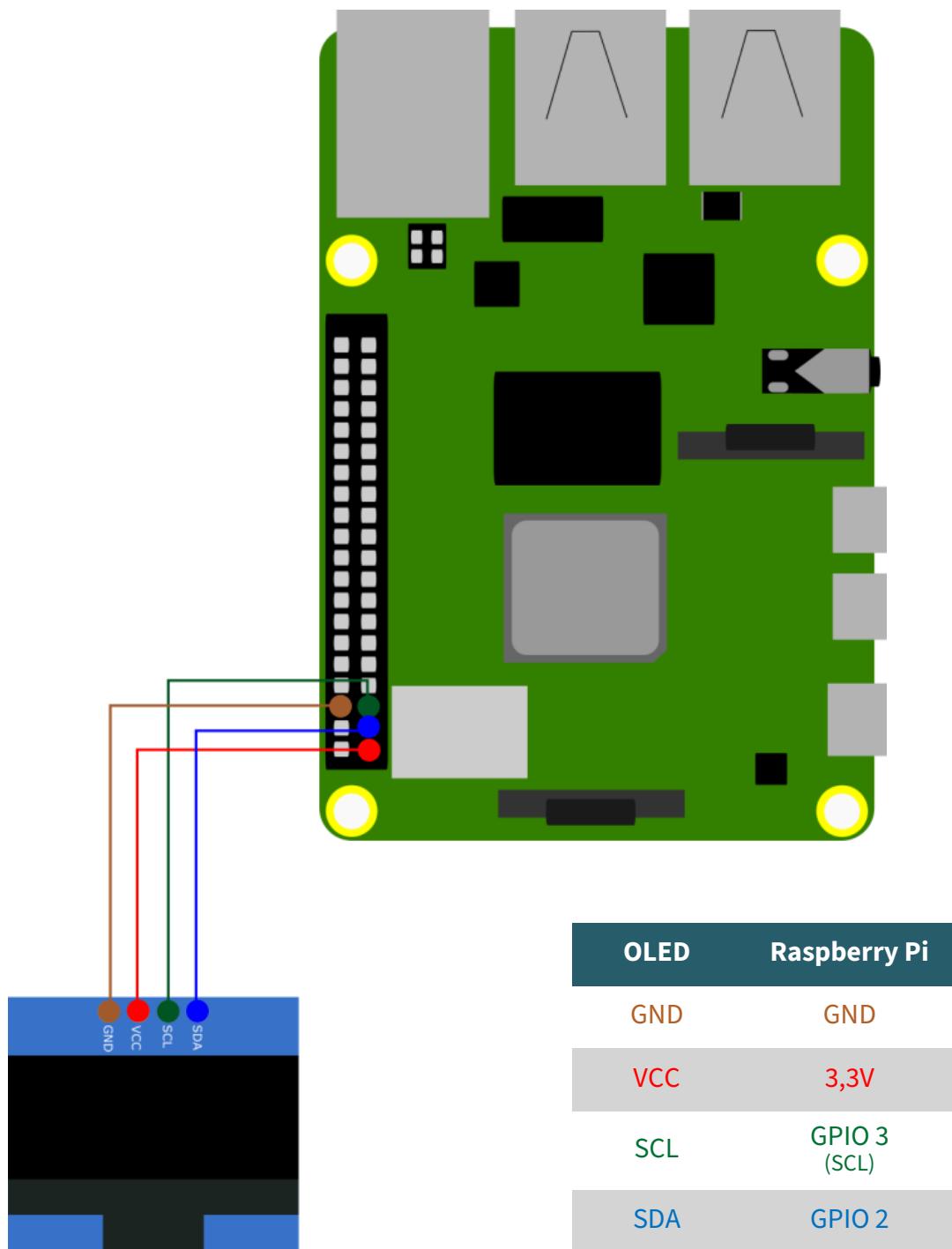
Before you can transfer the code example to your Arduino using your Arduino IDE, you must first install the additional libraries **Adafruit GFX Library** (released under the *BSD License*) and **Adafruit_SSD1306** (released under the *BSD License*) from **Adafruit**.
These libraries allow you to use the display as easily and quickly as possible. You can search for and install them under
Sketch → Include Library → Manage Libraries… .

You can download our code examples **here**. You can upload the code to your Arduino using the **Upload** button. Make sure that you have selected **Port** and **Board** correctly under ***Tools***.

4.1 Connection

OLED	Raspberry Pi
GND	GND
VCC	3,3V
SCL	GPIO 3 (SCL)
SDA	GPIO 2
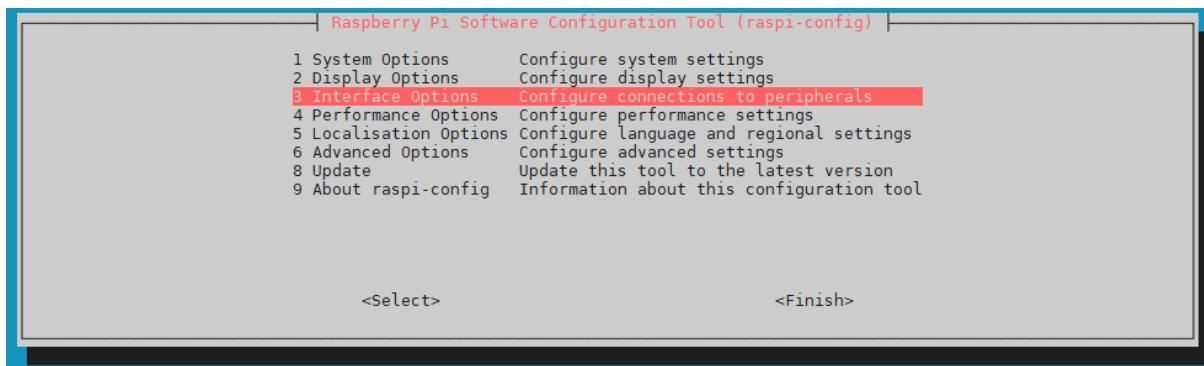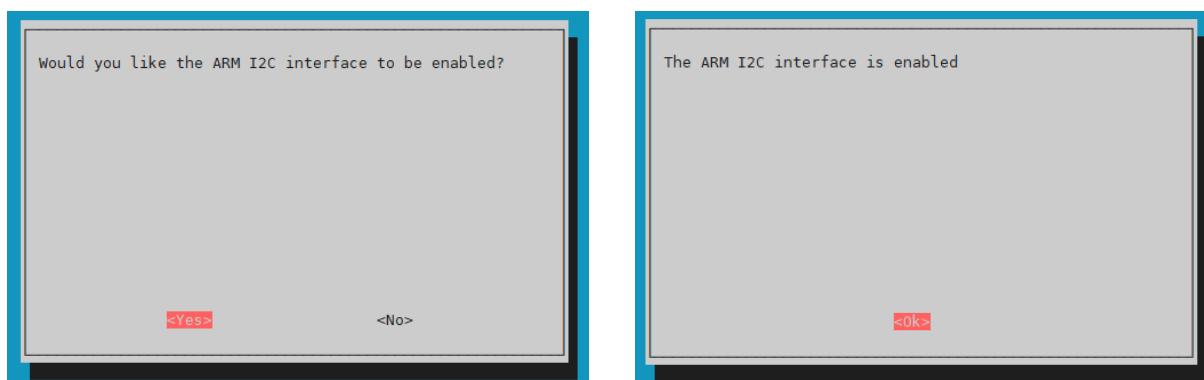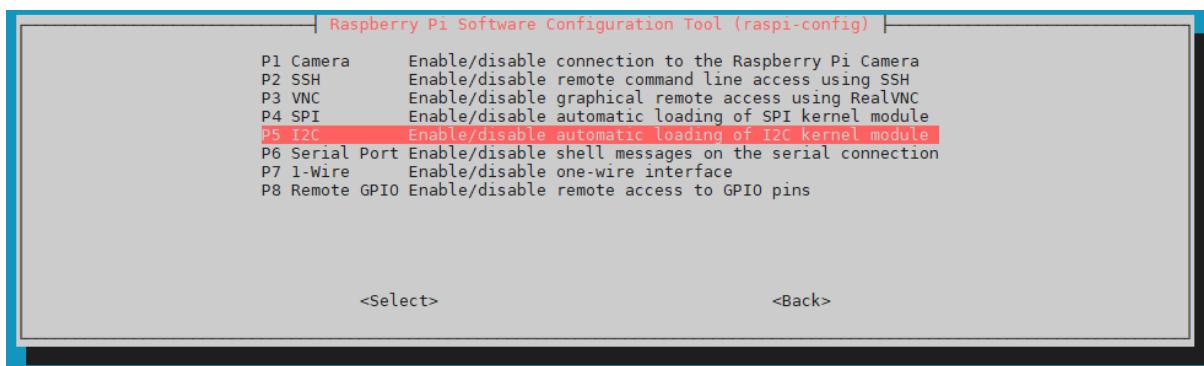
4.2 Installation

First, enable I2C on your Raspberry Pi. To do this, enter the following command into your console.

```
sudo raspi-config
```

Now activate I2C under **3 Interface Options** → **P5 I2C**.

Now, enter the following commands to install the necessary libraries.

```
sudo apt-get install python3-pip python3-pil
```

Now create the necessary virtual environment for the project with the following commands:

```
mkdir your_project
```

```
cd your_project
```

```
python -m venv --system-site-packages env
```

```
source env/bin/activate
```

For the display, we use the **Adafruit CircuitPython SSD1306 library** from Adafruit, which is released under the *MIT-License*. You can install it with the following command.

```
pip3 install adafruit-circuitpython-ssd1306
```

4.2 Code example

You can download our sample code with the following command.

```
wget https://www.joy-it.net/files/files/Produkte/SBC-OLED01/
SBC-OLED01_Codeexample_RaspberryPi.zip
```

Unzip the file with the following command.

```
unzip SBC-OLED01_Codeexample_RaspberryPi
```

You can now execute the code with the following command. Please note that the directory may differ.

```
cd SBC-OLED01_Codeexample_RaspberryPi
```

```
python3 SBC-OLED01.py
```

i This guide was written under Raspberry Pi OS Bookworm for the Raspberry Pi 4 and 5. It has not been checked with other/newer operating systems or hardware.

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 applianc- es to a collection point.
Before handing over waste batteries and accumulators that are not en- closed by waste equipment must be separated from it.

Return options:
As an end user, you can return your old device (which essentially fulfils 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 pur- chase 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 email 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.

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 9360-50 (Mo - Do: 09:00 - 17:00 o'clock CET,
                                                        Fri: 09:00 - 14:30 o'clock CET)

For further information visit our website:
www.joy-it.net