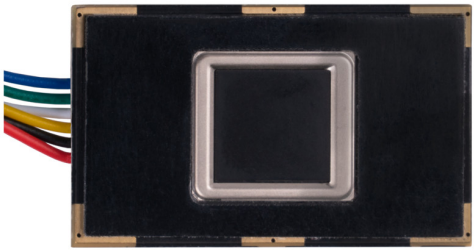
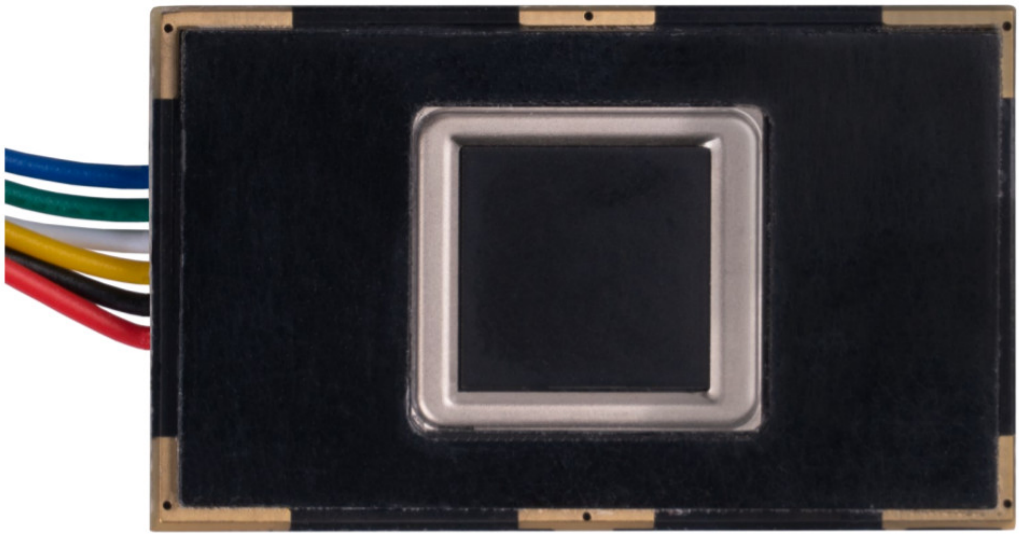


joy-it COM-FP-R301T Fingerprint Sensor User Guide

FINGERPRINT SENSOR
COM-FP-R301T

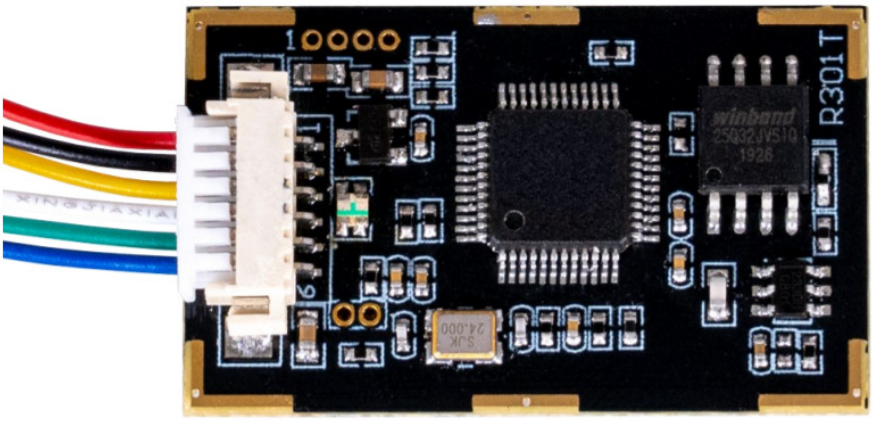


Contents

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.

PINOUT



Name	Colour
5 V	Red
GND	Black
TXD	Yellow
RXD	White
Touch	Green
3,3 V	Blue

USAGE WITH RASPBERRY PI

3.1 Connection

For the Raspberry Pi, we use a USB to TTL module. In our application example, we use our **USB interface converter – Joy-IT**item for this. Therefore, we connect the fingerprint sensor to the adapter as shown below..

Fingerprint sensor	SBC-TTL
5 V (Red)	5 V
GND (Black)	GND
TXD (Yellow)	RXD
RXD (White)	TXD
Touch (Green)	–
3,3 V (Blue)	–

Now connect the SBC-TTL to one of your Raspberry Pi's USB ports.
We use the SBC-TTL because the sensor is supplied by 5 V and TXD /RDX only have a logic level of 3,3 V. Therefore, the Raspberry Pi could be damaged during a direct connection with the sensor. The pin Touch is an output pin, which sends a signal if a finger has been placed on the sensor. The sensor can be operated with the 3.3 V pin but is then only able to detect whether a finger has been placed on it via the touch pin and cannot read the fingerprint.

3.2 Installation

We use the**GitHub – bastianraschke/pyfingerprint: Python library for ZhianTec fingerprint sensors (e.g. ZFM-20, ZFM-60)**library by **Bastian Raschke**, released under the **pyfingerprint/LICENSE at Development · bastianraschke/pyfingerprint · GitHub**, to control the fingerprint sensor. To
install the library and all its dependencies, run the following commands:

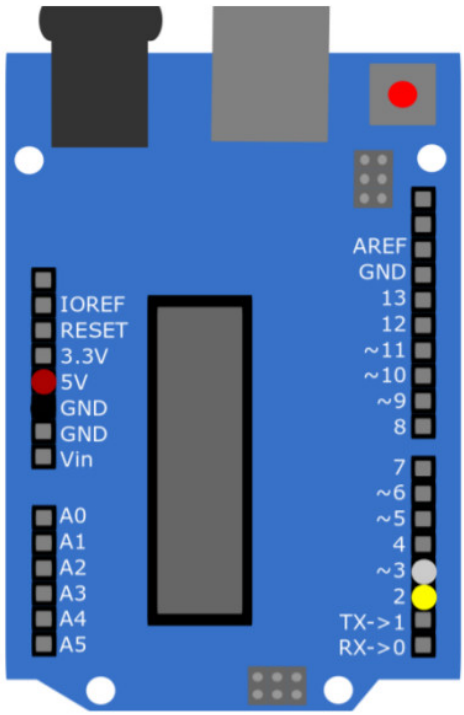
sudo bash
wget -O – https://apt.pm-codeworks.de/pm-codeworks.de.gpg | apt-key add –
wget https://apt.pm-codeworks.de/pm-codeworks.list -P /etc/apt/sources.list.d/apt-get update apt-get install python3-fingerprint –yes
apt-get -f install exit sudo stty -F /dev/ttyAMA0 57600

3.3 Usage with the library

If you now execute the following command, you can store a fingerprint.
`python3 /usr/share/doc/python3-fingerprint/examples/example_enroll.py`
You can use the following command to query your fingerprint to see if it is found in your data.
`python3 /usr/share/doc/python3-fingerprint/examples/example_search.py`
You can see how many fingerprints are currently stored by using the following command to see:
`python3 /usr/share/doc/python3-fingerprint/examples/example_index.py`

USAGE WITH ARDUINO

4.1 Connection



Fingerprint sensor	SBC-TTL
5 V (Red)	5 V
GND (Black)	GND
TXD (Yellow)	Pin 2
RXD (White)	Pin 3
Touch (Green)	–
3,3 V (Blue)	–

The pin Touch is an output pin, which sends a signal if a finger has been placed on the sensor. The sensor can be operated with the 3.3 V pin, but then only able to detect whether a finger has been placed on it via the touch pin and cannot read the fingerprint.

4.2 Installation

We use the library GitHub – adafruit/Adafruit-Fingerprint-Sensor-Library: Arduino library for interfacing to the fingerprint sensor in the Adafruit shop from Adafruit Industries · GitHub, which is released under the Adafruit-Fingerprint-Sensor-Library/license.txt at master · adafruit/Adafruit-Fingerprint-Sensor-Library · GitHub. You can install the library in the
Arduino IDE under **Tools → Manage Libraries… .**

4.3 Usage with the library

You can run sample codes under File → Examples → Adafruit Fingerprint Sensor Library. You can use the enroll script to add fingerprints and
fingerprint to compare a fingerprint to the stored data.
When executing this, make sure that you have selected the correct Board and Port in Tools.

OTHER INFORMATION

Our information and redemption obligation according to the Electrical and Electronic Equipment Act (ElektroG)

The 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.

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: **http://support.joy-it.net**
Telephone: +49 (0)2845 98469 – 66 (10 – 17 o'clock)
For more information visit our website: **www.joy-it.net**

www.joy-it.net
SIMAC Electronics GmbH
Pascalstr. 8, 47506 Neukirchen-Vluyn
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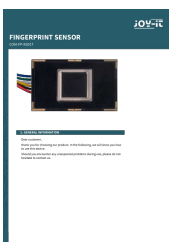
Documents / Resources

	**joy-it COM-FP-R301T Fingerprint Sensor** [pdf] User Guide COM-FP-R301T, Fingerprint Sensor