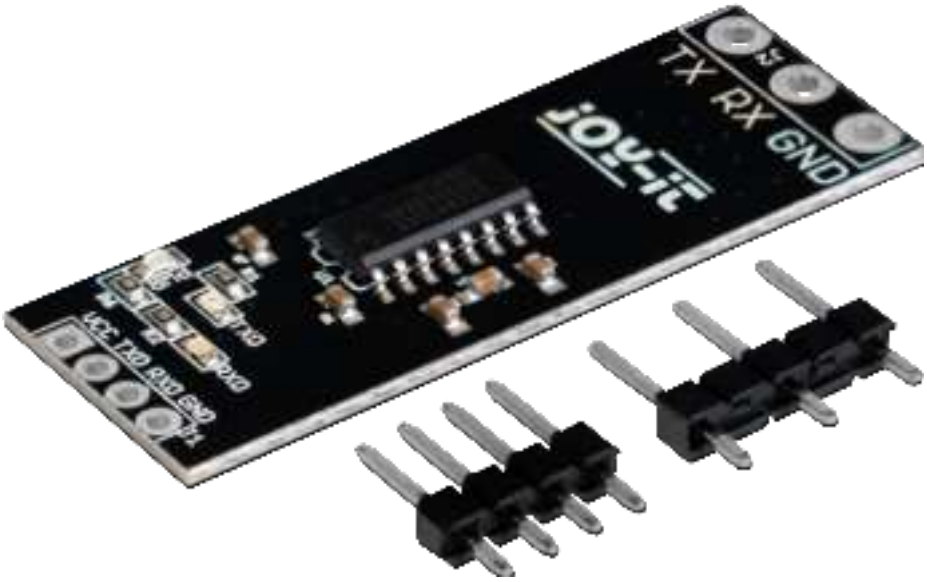
UART - RS232 TRANSCEIVER

COM-TTL-RS232



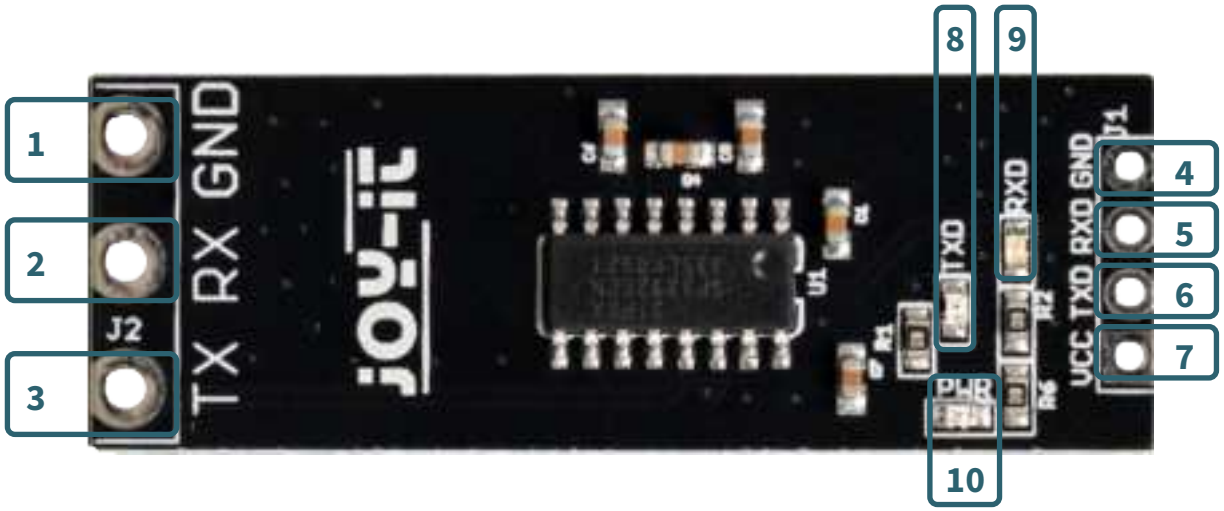
1. GENERAL INFORMATION

Dear customer, thank you for choosing our product. In the following, we will show you what to do during commissioning and Use must be observed.

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

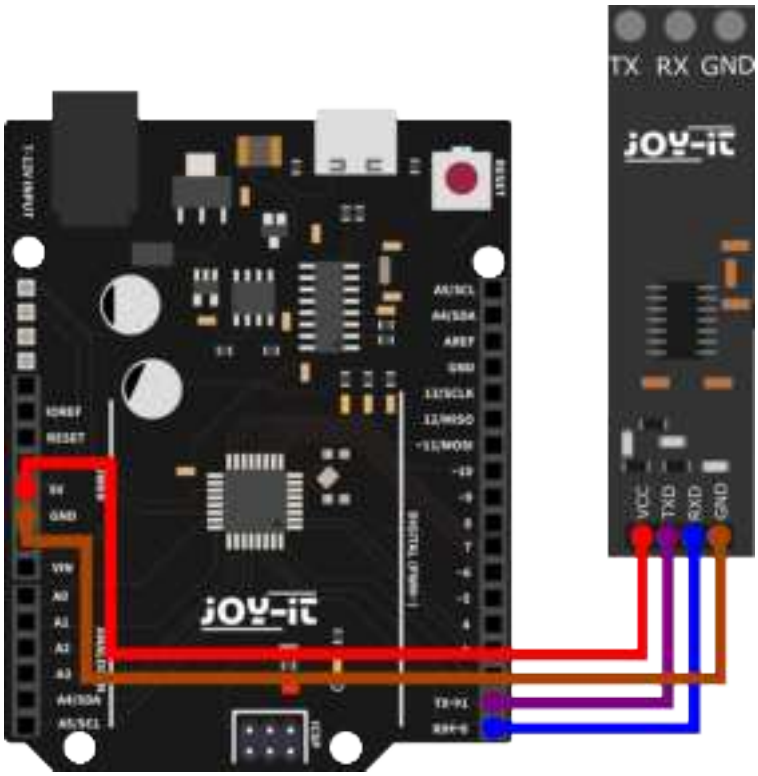
2. DEVICE OVERVIEW

Please note that the labeling of the RX and TX as well as RXD and TXD connections on the module does not describe the function of the module itself, but that of the respective counterpart to be connected. Therefore, when connecting to other devices, pay attention to the actual signal direction and do not cross RX and TX as would otherwise be the case.



NUMBER	Function
1	Ground connection RS232 signal
2	RS232 send connection of the module, connect your RS232 receive line here
3	RS232 receive connection of the module, connect your RS232 send line here
4	Ground connection to your controller
5	TTL transmit line of the module, connect the TTL receive line of your controller here
6	TTL receive line of the module, connect the TTL transmit line of your controller here
7	Power supply +
8	Status LED TTL receive line of the module
9	Status LED TTL transmit line of the module
10	Power LED

3. USE WITH AN ARDUINO



PIN	Arduino
VCC	5 V
TXD	Pin 1
RXD	Pin 0
GND	GND

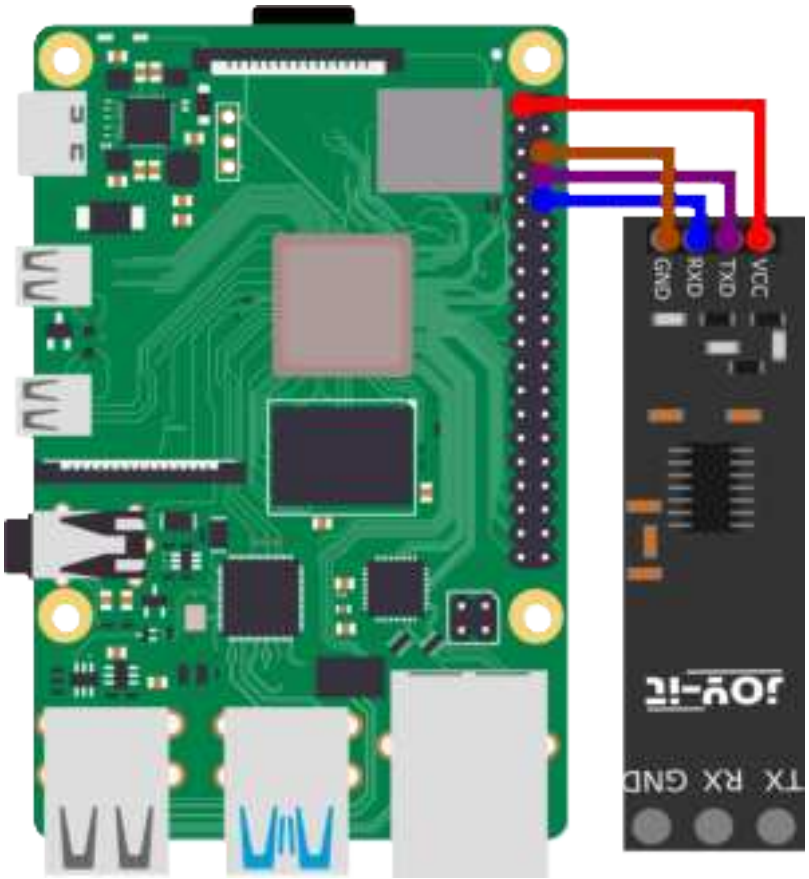
Connect your module to your Arduino as shown in the schematic and the table.
You can then transfer the following code example to your Arduino.

```
String testString;  //Declaring a variable
void setup() {
  Serial.begin(9600);  // Activating serial communication
}
void loop() {
  Serial.println("Please enter Test-String: ");
  while (Serial.available() == 0) {}  // Wait for input
  testString = Serial.readString();   //Reading out the input
  Serial.println("The Test-String received is: " + testString);
  Serial.println("----------------------------------------");
  delay(2000);
}
```

Alternatively, you can download the sample code here.

4. USE WITH A RASPBERRY PI

This guide was written under Raspberry Pi OS Bookworm for the Raspberry Pi 4 and 5. No check was carried out with newer operating systems or hardware.



PIN	Raspberry Pi
VCC	3.3 V
TXD	GPIO 14
RXD	GPIO 15
GND	GND

Installation:

First you need to enable the serial Interface on your Raspberry Pi.
To open the configuration, enter the following command:

```
sudo raspi-config
```

Select **3 Interface Options** → **I5 Serial,** disable the serial login shell and enable the serial hardware.

Now install python-serial with the following command:

```
sudo apt-get install python3-serial
```

Now enter the following command to download the prepared code example:

```
wget https://joy-it.net/files/files/Produkte/COM-TTL-RS232/COM-TTL-RS232_RPI.zip
```

Use the following command to unzip and remove the .zip directory:

```
unzip COM-TTL-RS232.zip && rm COM-TTL-RS232_RPI.zip
```

You can now start the code example with this command:

```
python3 COM-TTL-RS232_RPI.py
```

Alternatively, you can also transfer the sample code manually to your Raspberry Pi.

```
import serial
import time

# Opening the serial port for Pi4
#port = serial.Serial("/dev/ttyS0", baudrate=9600, timeout=3.0)

# Opening the serial port for Pi5
port = serial.Serial("/dev/ttyAMA0", baudrate=9600, timeout=3.0)

print ("Starting test...")
port.write(bytes("Please enter Test-String: \n",'ascii'))
# Message is sent
while True:
    testString = port.readline() # Something is read out
    testString = testString.decode('utf-8')  # Convert to string

    if testString != "":
      # Output to console
      print("The Test-String received is: " ,testString)
      print("-----------------------------------------------")
      time.sleep(2)
      port.write(bytes("Please enter Test-String: \n",'ascii'))
```

The code example is configured for the Raspberry Pi 5. If you're using a Raspberry Pi 4, comment out the port settings for Pi 5 and enable the corresponding port settings for Pi 4. Please refer to the comments in the code for guidance.

5. OTHER INFORMATION

Our information and take-back obligations under the German Electrical and Electronic Equipment Act (ElektroG)

Symbol on electrical and electronic equipment:

This crossed-out garbage can means that electrical and electronic appliances **do not** belong in household waste. You must hand in the old appliances at a collection point. Before handing them in, you must separate used batteries and accumulators that are not enclosed by the old appliance.

Return options:
As an end user, you can hand in your old appliance (which essentially fulfills the same function as the new appliance purchased from us) for disposal free of charge when purchasing a new appliance. Small appliances with no external dimensions greater than 25 cm can be disposed of in normal household quantities regardless of whether you have purchased a new appliance.

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

Return option in your area:
We will send you a parcel stamp with which you can return the device to us free of charge. To do so, please contact us by e-mail at Service@joy-it.net or by telephone.

Packaging information:
Please pack your old appliance securely for transportation. 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.

6. SUPPORT

We are also there for you after your purchase. If you still have any questions or problems arise, we are also available by e-mail, telephone and ticket support system.

E-Mail: service@joy-it.net
Ticket-System: https://support.joy-it.net
Phone: +49 (0)2845 9360 - 50

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

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