

SKU:SEN0486 (<https://www.dfrobot.com/forum/>)

[(Product Link)



Introduction

This highly integrated QR code scanner with excellent performance can recognize common 1D codes and 2D codes. With a small size, it employs easy-to-connect Gravity Interface and is equipped with a RGB indicator that feeds back the sensor recognition status by showing different colors. Operating at 3.3V/5V, the scanner is compatible with UART and I2C communication, which makes it easier to develop on controllers like Arduino, ESP32, Raspberry Pi, etc. It can be used in self-service vending machines, subway gates, access control, payment machines, etc.

Features

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- Use-to-connect Gravity interface
 - 3.3V/5V power supply
 - I2C & UART supported

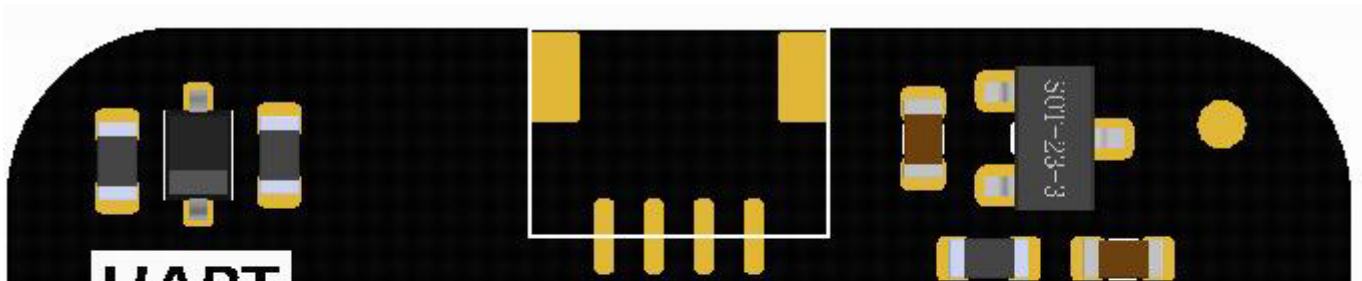
Specification

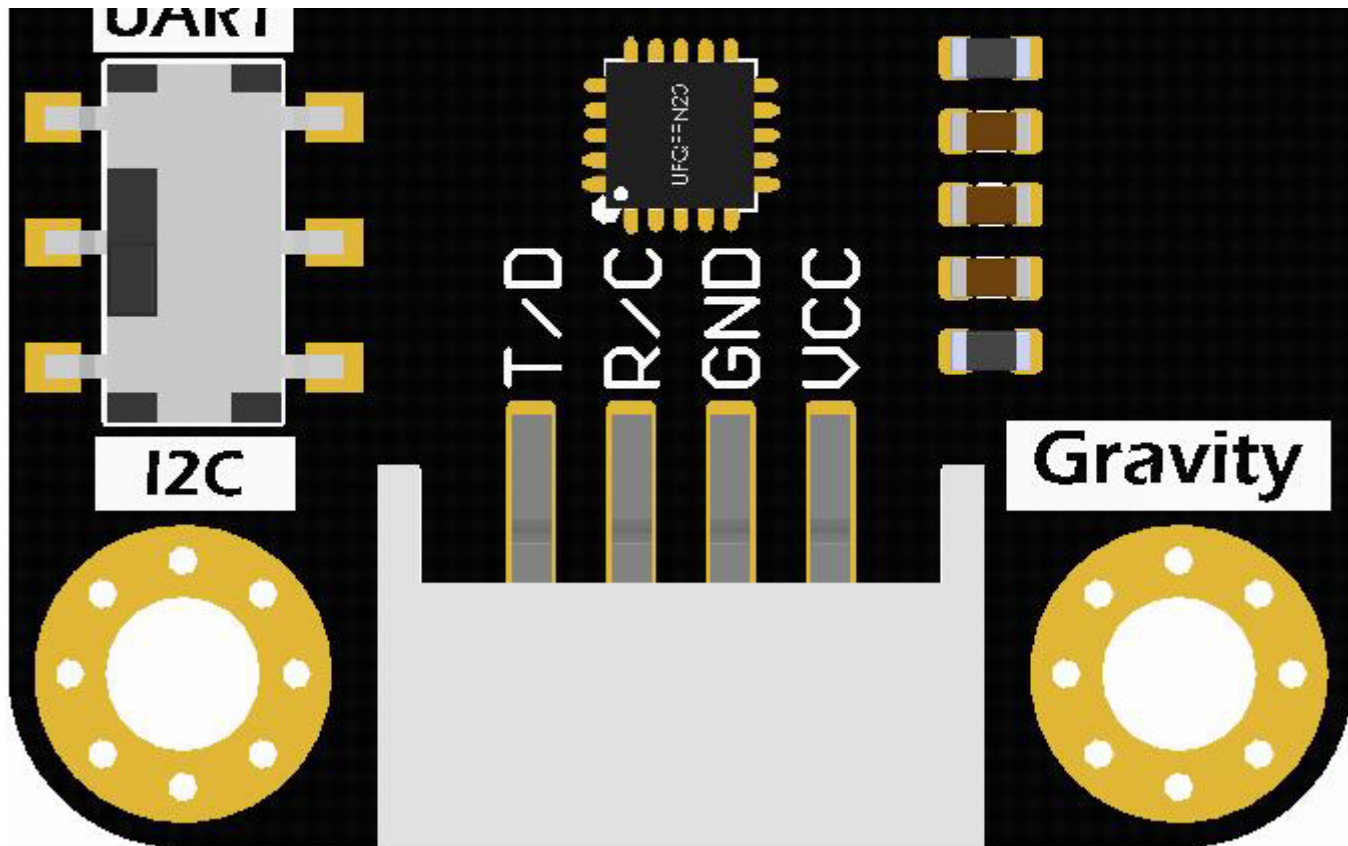
- Power Supply: DC3.3V/5V
- Working Current: <70mA
- Communication: I2C, UART
- Image Pixel: 640*480
- Light Source: colorful indicator/green light flashing prompt successful reading
- Code System:

- 1D: EAN13, EAN8, UPCA, UPCE0, UPCE1, Code128, Code39, Code93, CodeBar, Interleaved
- 2D: QR code, Data Matrix, PDF417

- Depth of Field: QR Code (25mm-150mm product performance may be affected to varying degrees due to barcode quality and environmental conditions)
- Contrast: $\geq 25\%$
- Reading Angle: roll 360° , pitch 55° , yaw 55°
- Scanning Angle: 69° (horizontal), 56° (vertical)
- Reading Accuracy: $\geq 5\text{mil}$
- Working Temperature: $20^\circ\text{C} \sim 60^\circ\text{C}$
- Storage Temperature: $-40^\circ\text{C} \sim 80^\circ\text{C}$
- Environment Light: $0 \sim 100000\text{Lux}$
- Relative Humidity: 5% to 95% (non-condensing)

Board Overview





No.	Name	Function
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No.	Name	Function
1	SDA/TX	I2C communication data line/UART transmitting data line
2	SCL/RX	I2C communication clock line/UART receiving data line

3	GND	Power -
4	VCC	Power + (3.3/5V)

Tutorial

Requirements

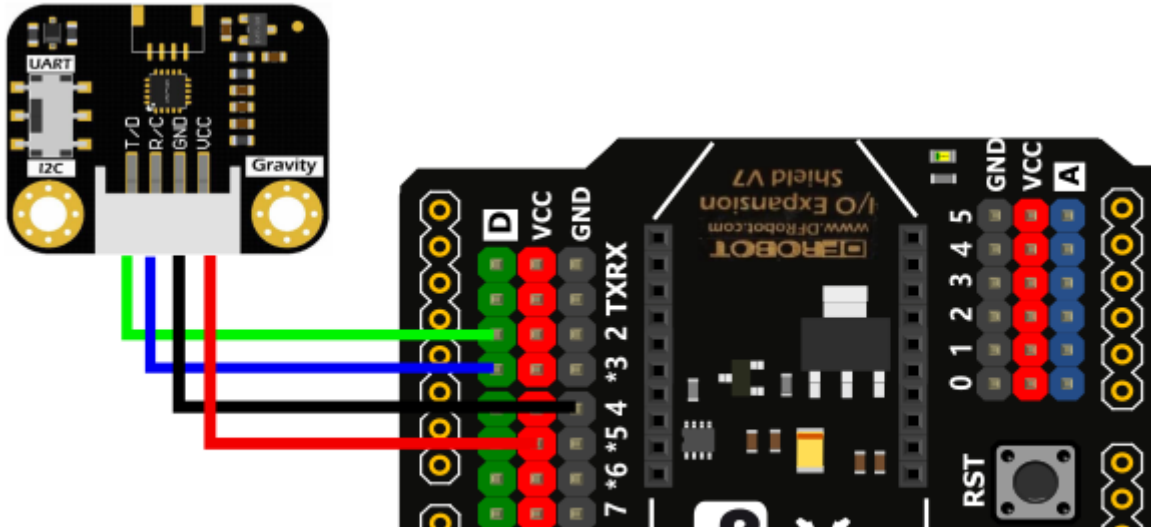
- Hardware
 - DFRduino UNO R3 (<https://www.dfrobot.com/product-838.html>) (or similar) x 1
 - Gravity: Ring 2D QR Code Scanner x1
 - M-M/F-M/F-F Jumper wires

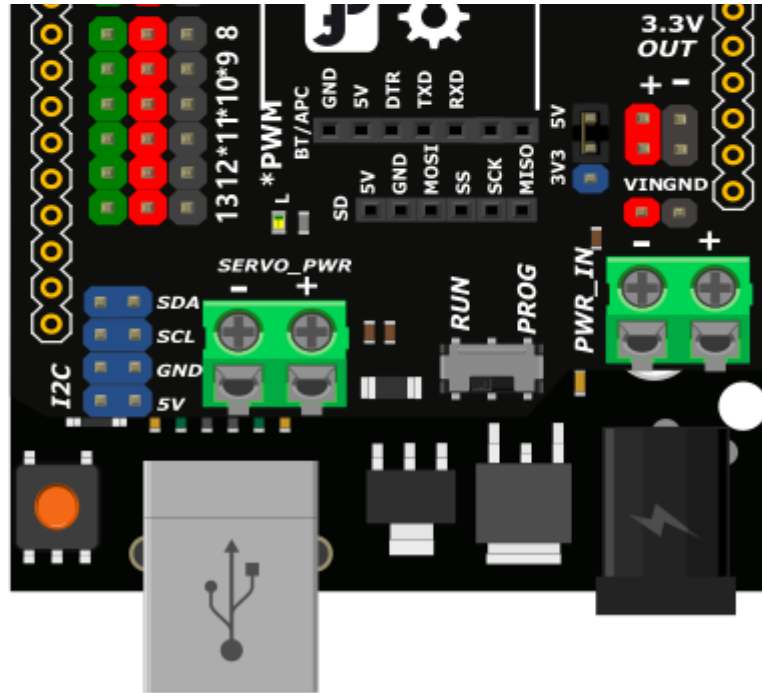
- Software

- Arduino IDE (<https://www.arduino.cc/en/Main/Software>)

- Download and install the **XXX Library** () (About how to install the library? (<https://www.arduino.cc/en/Guide/Libraries#.UxU8mdzF9H0>))

Connection Diagram



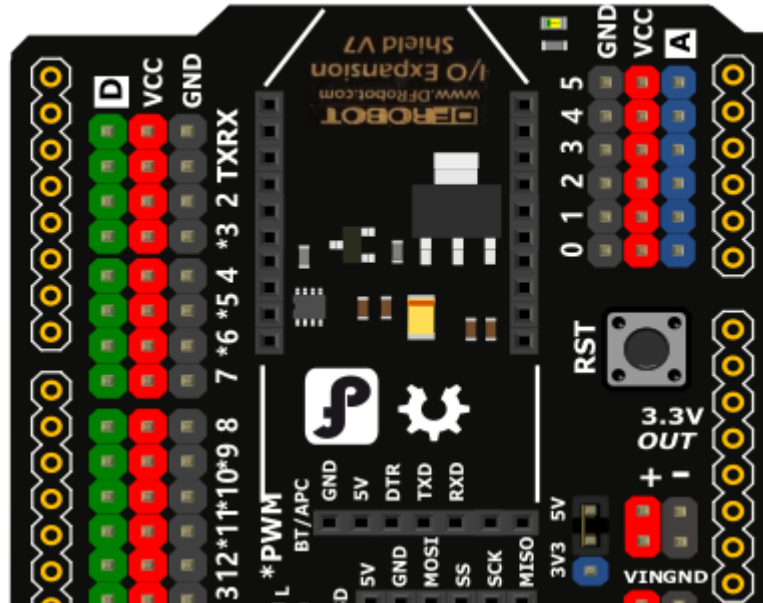
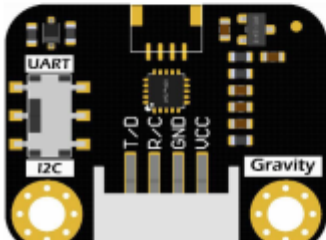


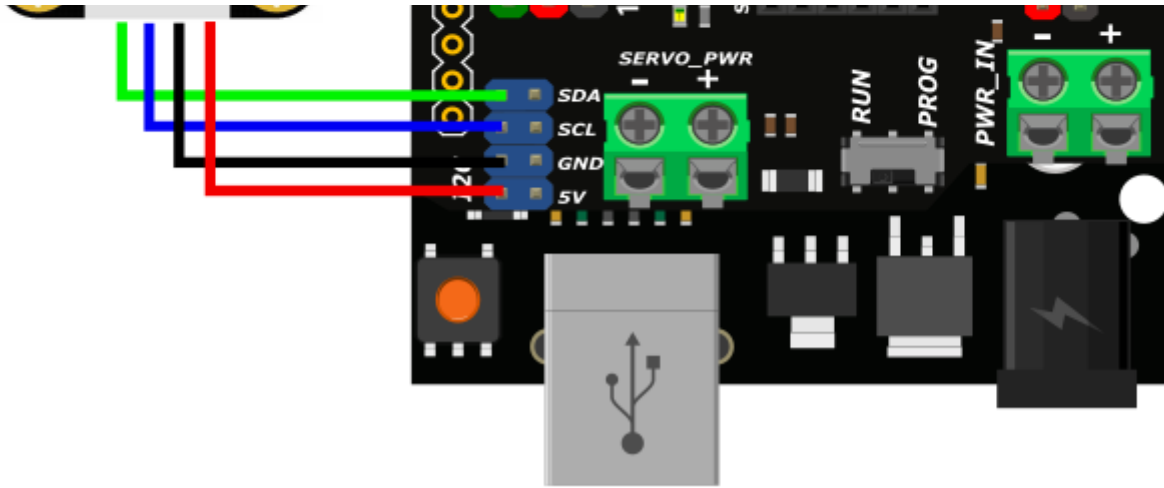
UART Sample Code

Turn the DIP switch of the adapter board to UART and then burn the code into your controller.

Expected Result

Detect the data contained in the scanned QR code, and return the scanned data as a character string and print it on the serial port.





I2C Sample Code

Turn the DIP switch of the adapter board to I2C and then burn the code into your controller.

Expected Result


Detect the data contained in the scanned QR code and return the scanned data as a character

Detect the data contained in the scanned QR code, and return the scanned data as a character string and print it on the serial port.

FAQ

For any questions, advice or cool ideas to share, please visit the **DFRobot Forum** (<https://www.dfrobot.com/forum/>).

More Documents

 Get **Gravity: Ring 2D QR Code Scanner** (<https://www.dfrobot.com/product-203.html>) from DFRobot Store or **DFRobot Distributor**. (<https://www.dfrobot.com/index.php?route=information/distributorslogo>)

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