DFR0231-H Gravity: UART & I²C NFC Module

DFR0507

Description

DFRobot DFR0231-H Gravity: UART & I²C NFC Module integrates NXP PN532 NFC communication controller that supports MIFARE classic series, NTAG series, and various NFC smart cards. This module is an upgraded version of the Gravity family that adopts Gravity PH2.0-4P interface with I²C & UART composite other than 2.54mm headers, which makes the wiring more convenient. The UART & I²C NFC module includes a switch for convenient switching between these two interfaces.

This Gravity module exhibits the ability to effortlessly read and write various NFC cards using a USB to UART converter and PN532 compatible PC software through UART. This module is used in various 3.3V/5V controllers such as Arduino, micro: bit, FireBeetle ESP32, and FireBeetle ESP8266 when using the I²C interface.

Features

- NXP PN532 highly integrated NFC controller
- Gravity I²C & UART composite interface
- Flexible use
- Supports various kinds of mainstream NFC smart cards or tags
- Compatible with 3.3V/5V controller

Specifications

- 3.3V to 5V input voltage range
- 115200bps UART baud rate
- 0x48 I²C address
- 13.56MHz communication frequency
- 20g weight
- Protocol support:
  - Reader/Writer mode: ISO/IEC 14443A, ISO/IEC 14443B, MIFARE, and FeliCa
  - Card emulation mode: ISO 14443A/MIFARE classic 1K or 4K and FeliCa
  - Peer-to-Peer: ISO/IEC18092 and ECM340
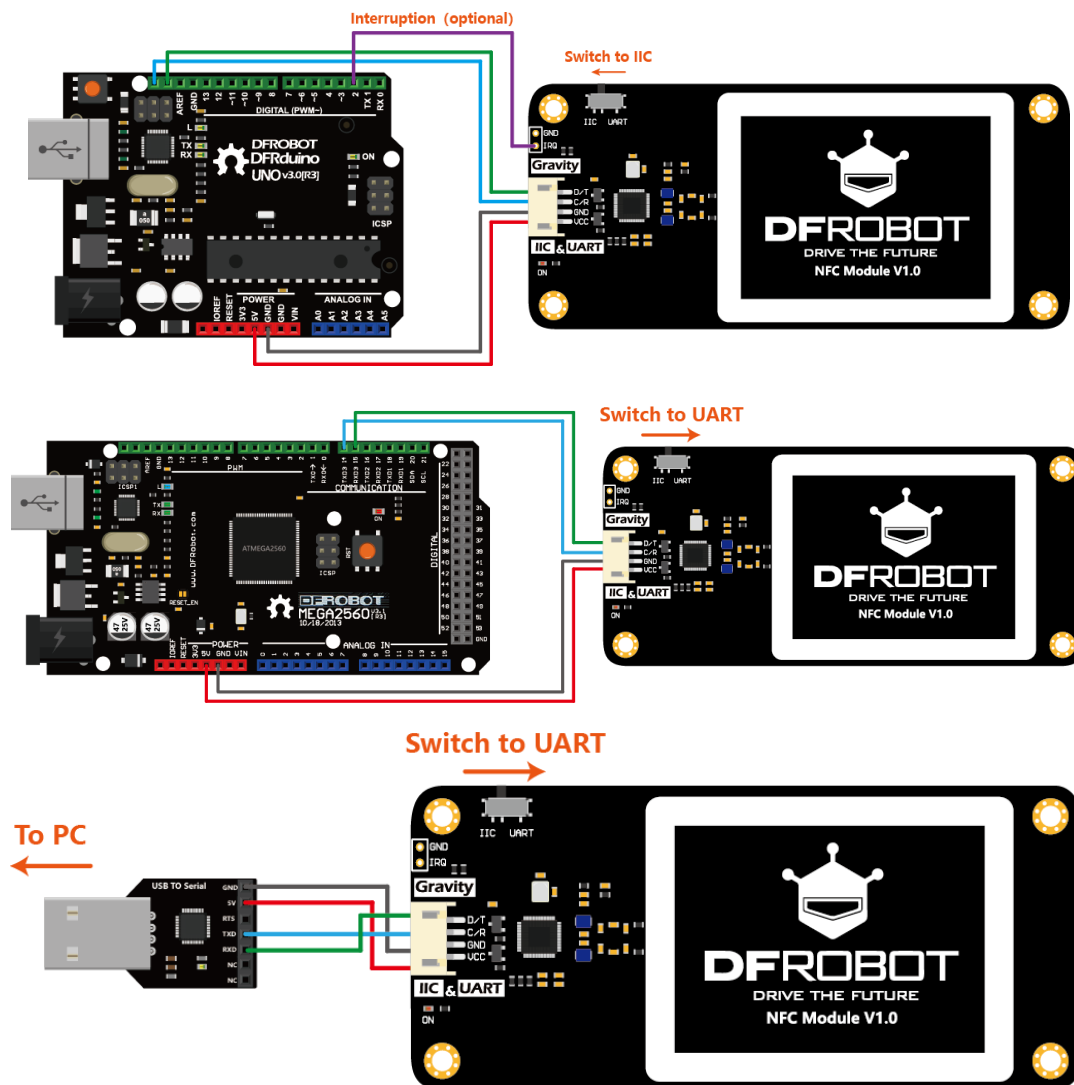- 110mm × 50mm dimensions

Applications

- Contactless payment system
- Links for BLUETOOTH® and Wi-Fi® devices
- Social sharing features like contacts, photos, and videos
- Smartphone NFC application

Kit Contents

- 1 x Gravity UART & I^{2}C NFC module
- 1 x Gravity-4P I^{2}C/UART sensor wire
- 1 x XH2.54-2P black header
- 1 x MIFARE classic NFC tag sticker (round)

Connection Diagram

Mouser Part Number

View Part

To learn more, visit https://www.mouser.com/new/dfrobot/dfrobot-dfr0231-h-uart-i2c-module/