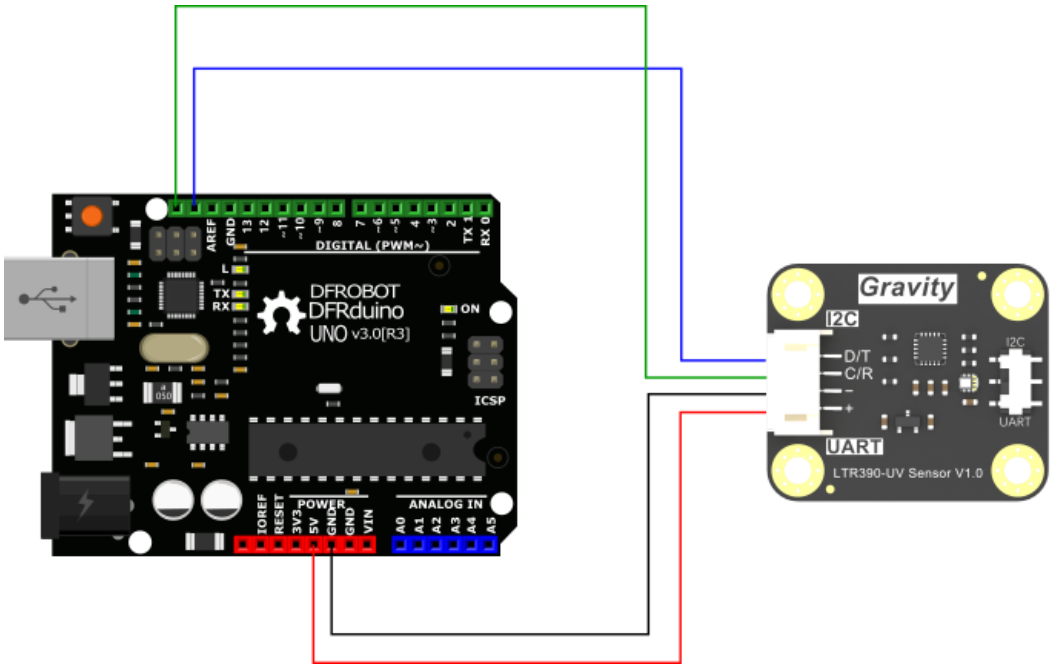
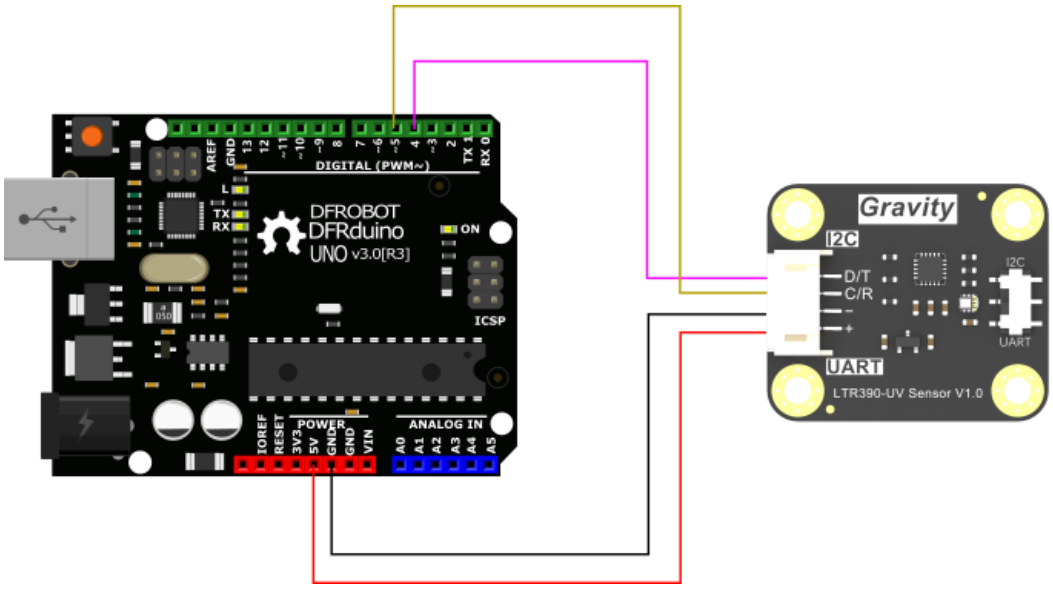
Introduction

This Gravity: LTR390-UV sensor from DFRobot provides both ambient light and UV sensing with UV spectral response from 280nm to 430nm and raw data output. It features high sensitivity, quick response, and strong anti-interference ability.

With built-in ADC and MCU, this UV module can convert light data to a digital signal capable of being output via I2C or UART interface. It can be used for light experiments, outdoor UV detection, and other scenarios requiring UV or ambient light monitoring.



I2C Connection Diagram



UART Connection Diagram

Features

- Support I2C and UART communication
- 3.3V & 5V compatible
- 13 to 20 bits effective resolution
- Adjustable gain range: 1, 3, 6, 9 and 18
- Interrupt function, programmable upper and lower thresholds
- Close to human eye spectral response

Applications

- UV intensity detection
- Light intensity detection
- Weather experiments for teaching
- Light detection experiments
- Devices for monitoring UV index
- Devices for outdoor UV detection

Specification

- Chip: LTR390-UV-01
- Operating Voltage: DC 3.3V to 5V
- Operating Current: about 2.73mA (18-bit data acquisition with a time of 100ms)
- Communication Interface: I2C, UART
- UV Response Wavelength: 280nm to 430nm
- ALS Spectral Response Wavelength: 450nm to 700nm
- Output Type: digital output
- Dimension: 32mm×27mm/1.26×1.06”

Documents

- Product wiki
- STP 3D Model

2D CAD Dimension

2D_CAD

Schematics

UV Datasheet

Shipping List

Gravity: LTR390-UV Sensor × 1

Gravity-4P I2C/UART Sensor Cable × 1