

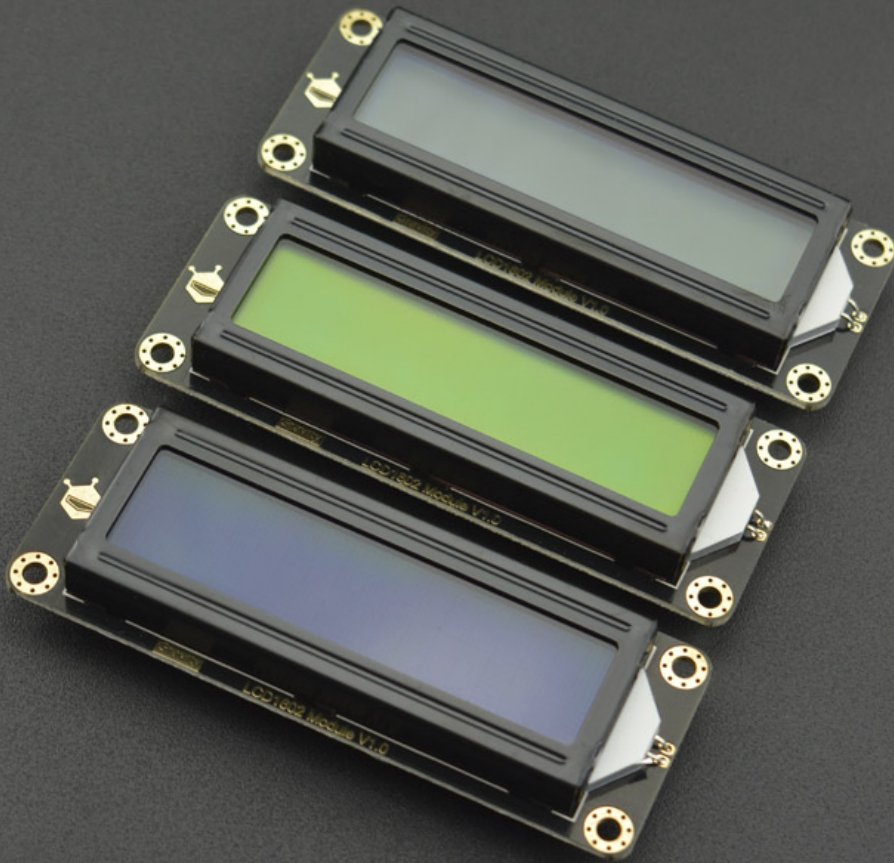
## **INTRODUCTION**

Referring to the LCD16020, I believe that everyone is not unfamiliar with the square shape, green color, a row of 2.54 pin header.... LCD1602 module is a product of the DFRobot Gravity I2C series, which has been greatly optimized for its original LCD1602 appearance. This module does not need to adjust the contrast, retain the backlight controllable function, and simultaneously compatible with 3.3V and 5V voltage. The optimization of function and the appearance will bring you the different experience.

# Gravity: IIC LCD 1602 Arduino LCD Display Module

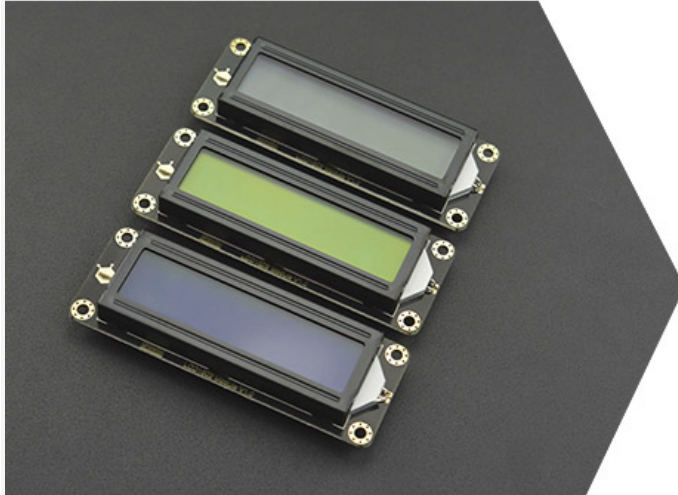
( Grey Background Green Background Blue Background )

Gravity IIC Interface / Adjustable Backlight Brightness  
Compatible with 3.3V/5V / Three Background Colors to Choose



**DFROBOT**  
DRIVE THE FUTURE

# Product Features



01

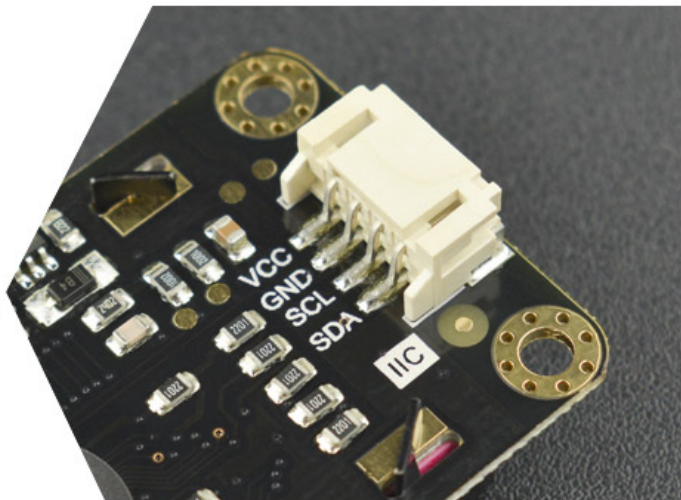
## Adjustable Backlight Brightness

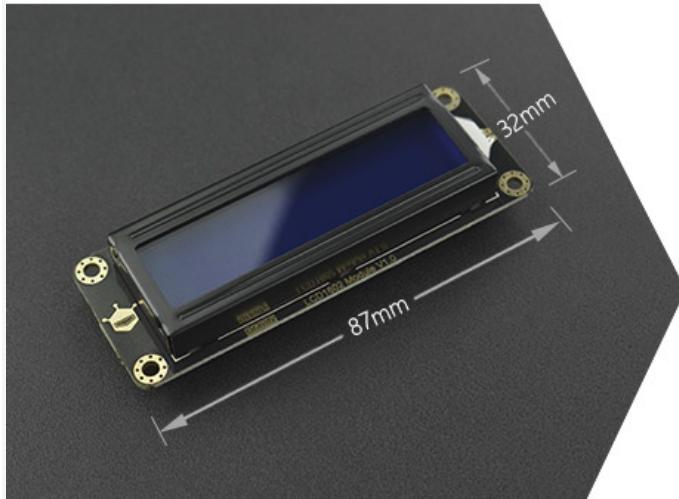
Three optional colors (grey/blue/green) of display screen with adjustable backlight brightness.

02

## IIC interface

Standard IIC interface, compatible with Gravity wire sequence, easy to use.



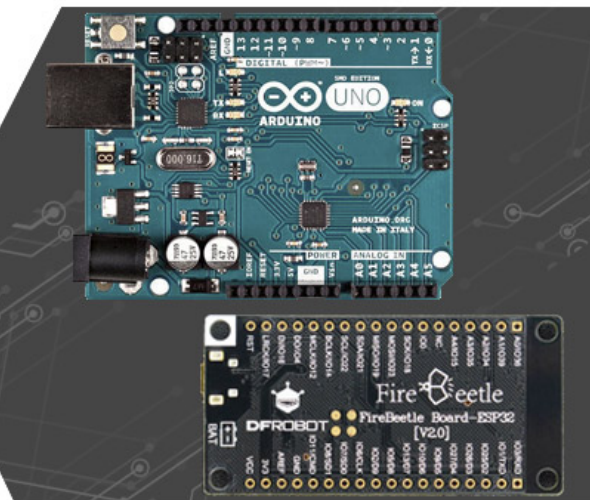


### 03 Beautiful and Small

Exquisite workmanship, high integration design, stable performance, minimal size  
Dimension: 87mm\*32mm\*13mm/  
3.43in\*1.26in\*0.51in

### 04 Compatible with 3.3V / 5V

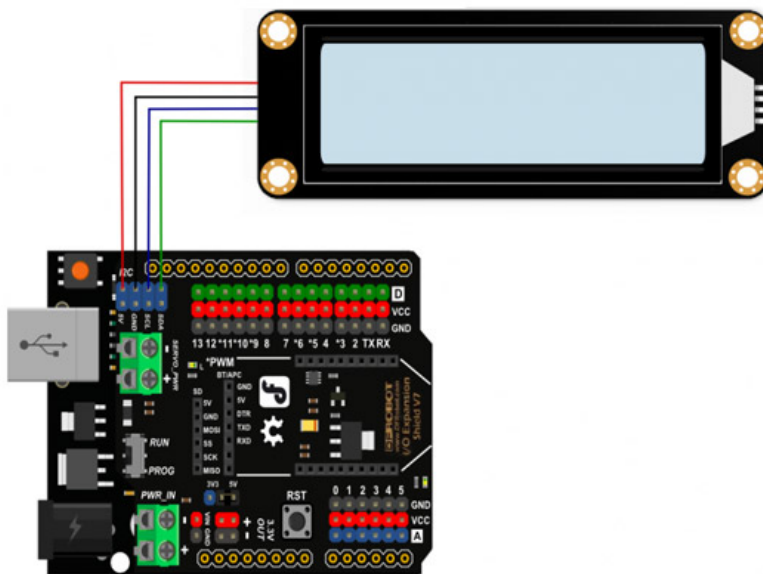
Compatible with 3.3V and 5V level design, run perfectly in environments such as ArduinoUNO,ESP32 and so on.



# Programming Examples

## Preparation

- Hardware
  - UNO main control board x1
  - 1×1/O Expansion
  - IIC Sensor Wire x1
- Software
  - Arduino IDE [点击下载Arduino IDE](#) 



## Sample Code

```
/*!
 * file Fade.ino
 * brief Fade.
 *
 * Copyright [DFRobot] (http://www.dfrobot.com), 2016
 * Copyright GNU Lesser General Public License
 *
 * version V1.0
 * date 2018-1-13
 */

#include <Wire.h>
#include "DFRobot_LCD.h"

DFRobot_LCD lcd(16, 2); //16 characters and 2 lines of show

void breath(unsigned char color) {
  for (int i=0; i<255; i++){
    lcd.setPWM(color, i);
    delay(5);
  }

  delay(500);
  for (int i=254; i>=0; i--){
    lcd.setPWM(color, i);
    delay(5);
  }

  delay(500);
}

void setup() {
  // initialize
  lcd.init();
  // Print a message to the LCD.
  lcd.setCursor(4, 0);
  lcd.print("DFRobot");
  lcd.setCursor(1, 1);
  lcd.print("lcd1602 module");
}

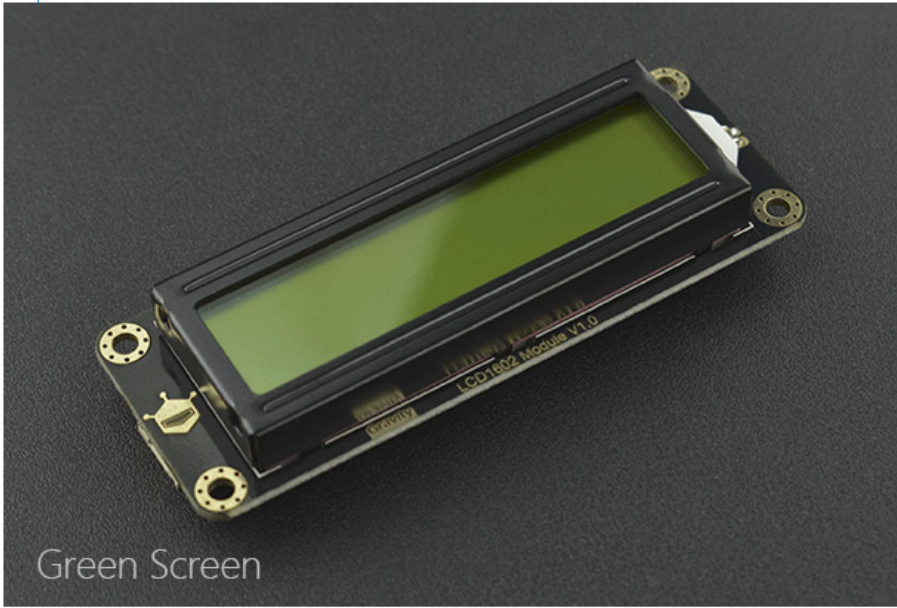
void loop() {
  breath(REG_ONLY);
}
```



# Product Display



Grey Screen

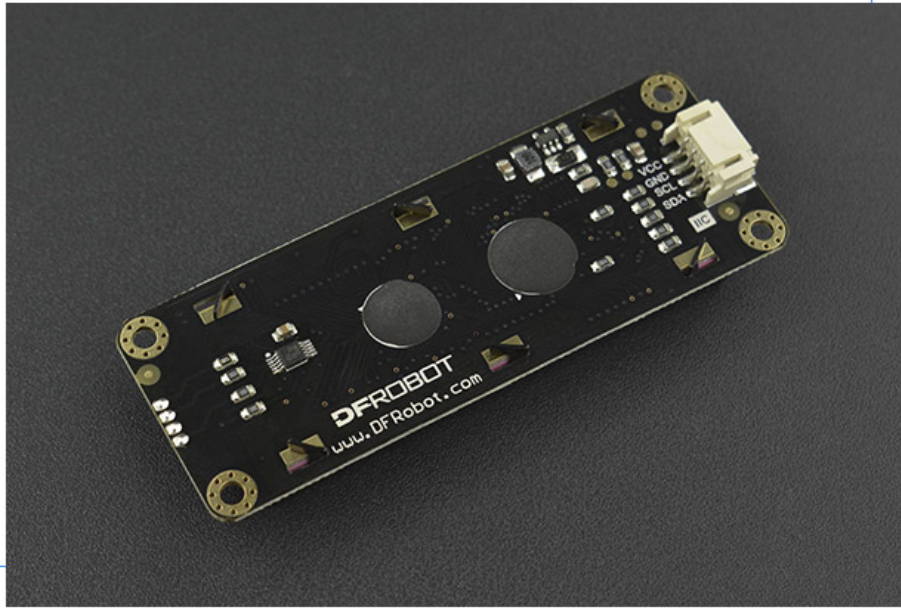
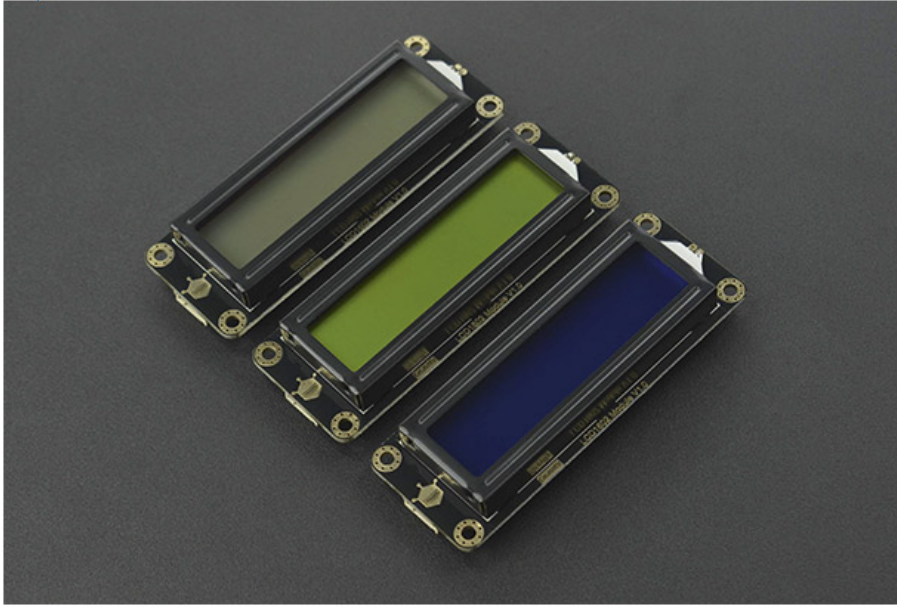


Green Screen

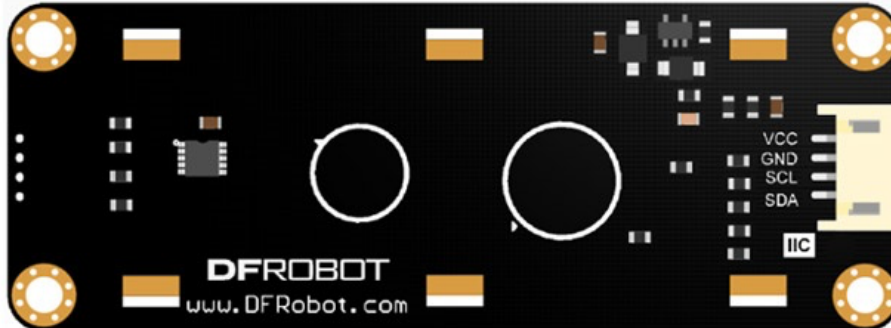


Blue Screen





# Product Parameter



Num	Label	Description
1	VCC	3.3~5.0V
2	GND	GND
3	SCL	I2C-SCL
4	SDA	I2C- SDA

## SPECIFICATION

- Operating Voltage: 3.3V~5.0V
- Operating Current:  $\leq 20\text{mA}$
- Display Description: 16\*2
- Communication Mode: I2C
- Backlight: Gray
- Operating Temperature:  $-20$  to  $+70^{\circ}\text{C}$
- Storage Temperature:  $-30$  to  $+80^{\circ}\text{C}$
- Dimension: 87.0\*32.0\*13.0mm/3.43\*1.26\*0.51in

## DOCUMENTS

- [Product wiki](#)
- [More Documents](#)

## SHIPPING LIST

- Gravity: I2C LCD1602 Arduino LCD Display Module (Gray) x1
- Gravity I2C/UART sensor cable x1