

(<https://www.dfrobot.com/product-1470.html>)

## Introduction

()

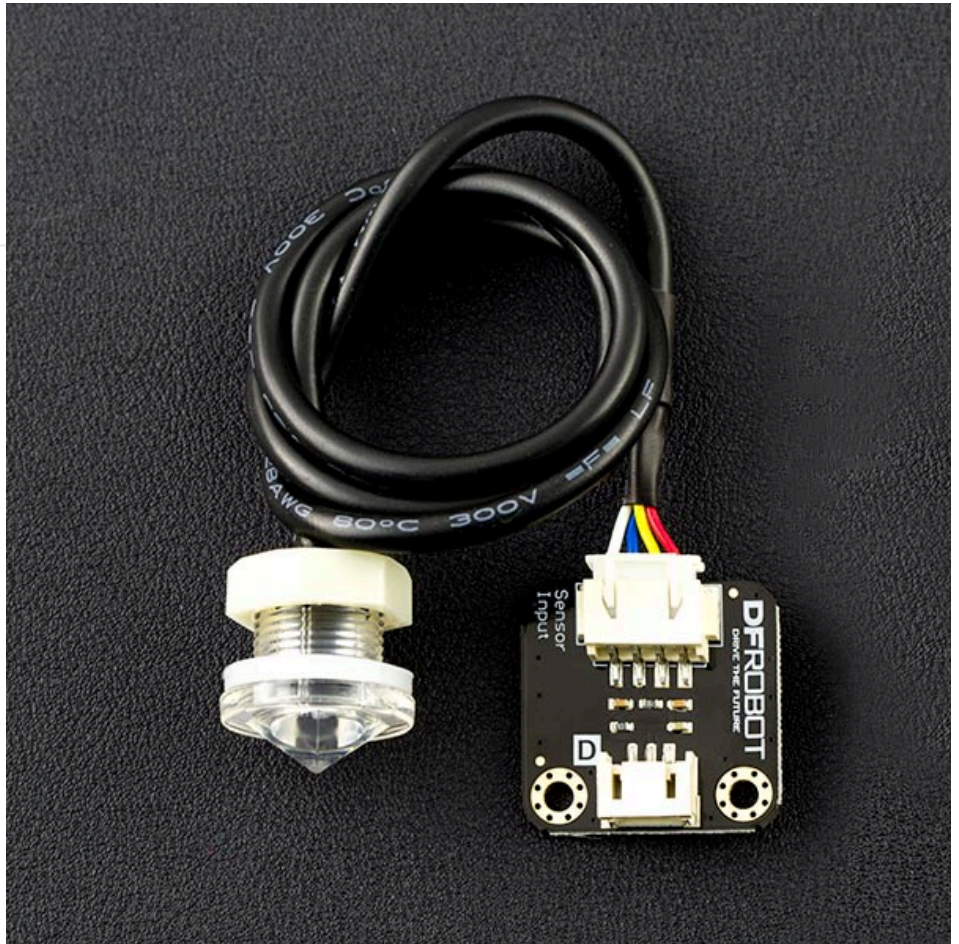
This is a photoelectric liquid level sensor that operates using traditional optical principles. The advantages of this are a high sensitivity and no need for mechanical parts - meaning less calibration! The corrosion resistant probe

is easily mounted and can handle high temperatures and high pressures. The sensor is equipped with an interface adapter for compatibility with the DFRobot "Gravity" interface.

**Note:** Avoid placing the sensor near bright lights or in direct sunlight as these can cause interference.

## Specification

- Model: FS-IR02
- Type: Photoelectric Liquid Level Sensor
- Operating Voltage: 5V DC



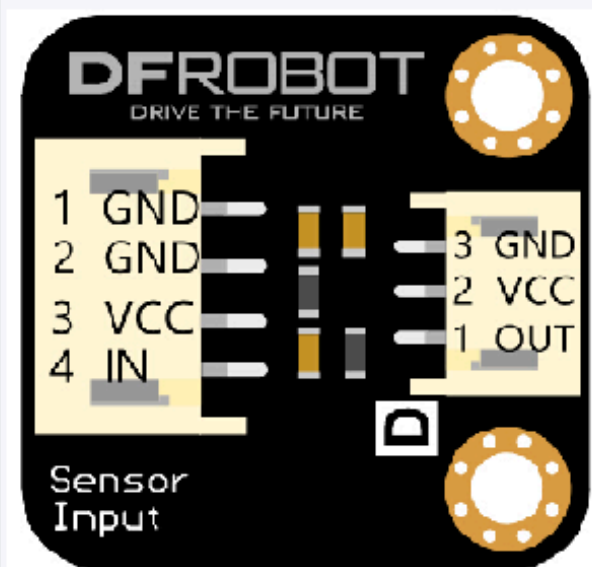
- Output Current: 12mA
- Operating Temperature: - 25 ~ 105 °C
- Low Level Output: < 0.1 V
- High Level Output: > 4.6 V
- Liquid Level Detection Accuracy:  $\pm 0.5$  mm
- Material: Polycarbonate
- Measuring Range: No limit
- Life: 50,000 hours

## Board Overview



Liquid Level Sensor-FS-IR02 Pin Mappings

Num.	Name	Description
1 (Red)	GND	Probe_GND
2 (Yellow)	GND	Probe_GND
3 (Blue)	VCC	Probe_VCC
4 (Whitel)	OUT	Signal Output



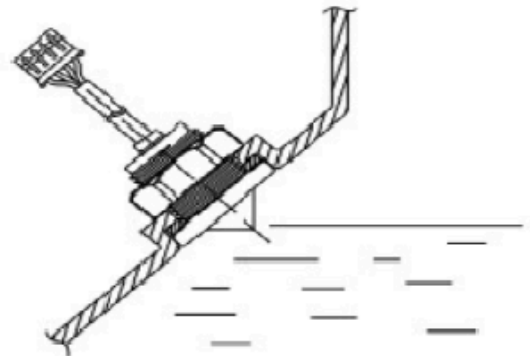
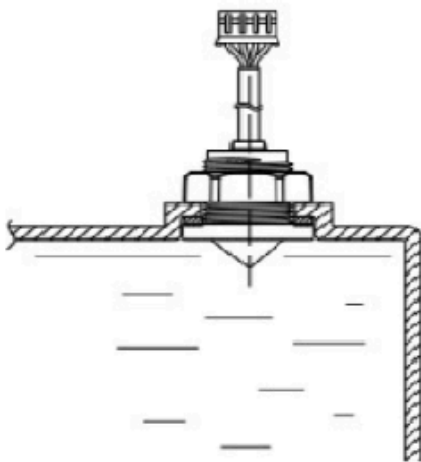
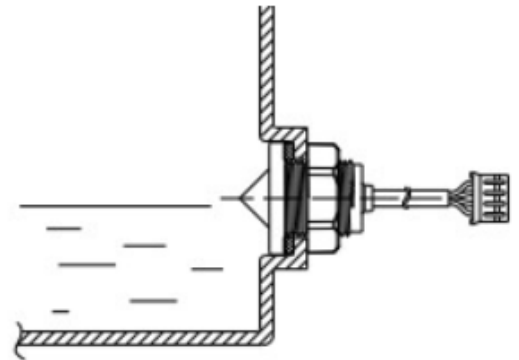
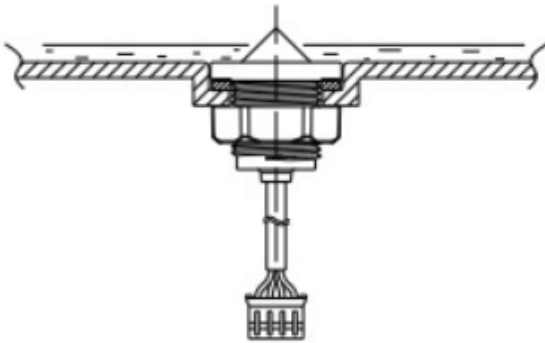
Liquid Level Sensor-FS-IR02 Pin Mapping

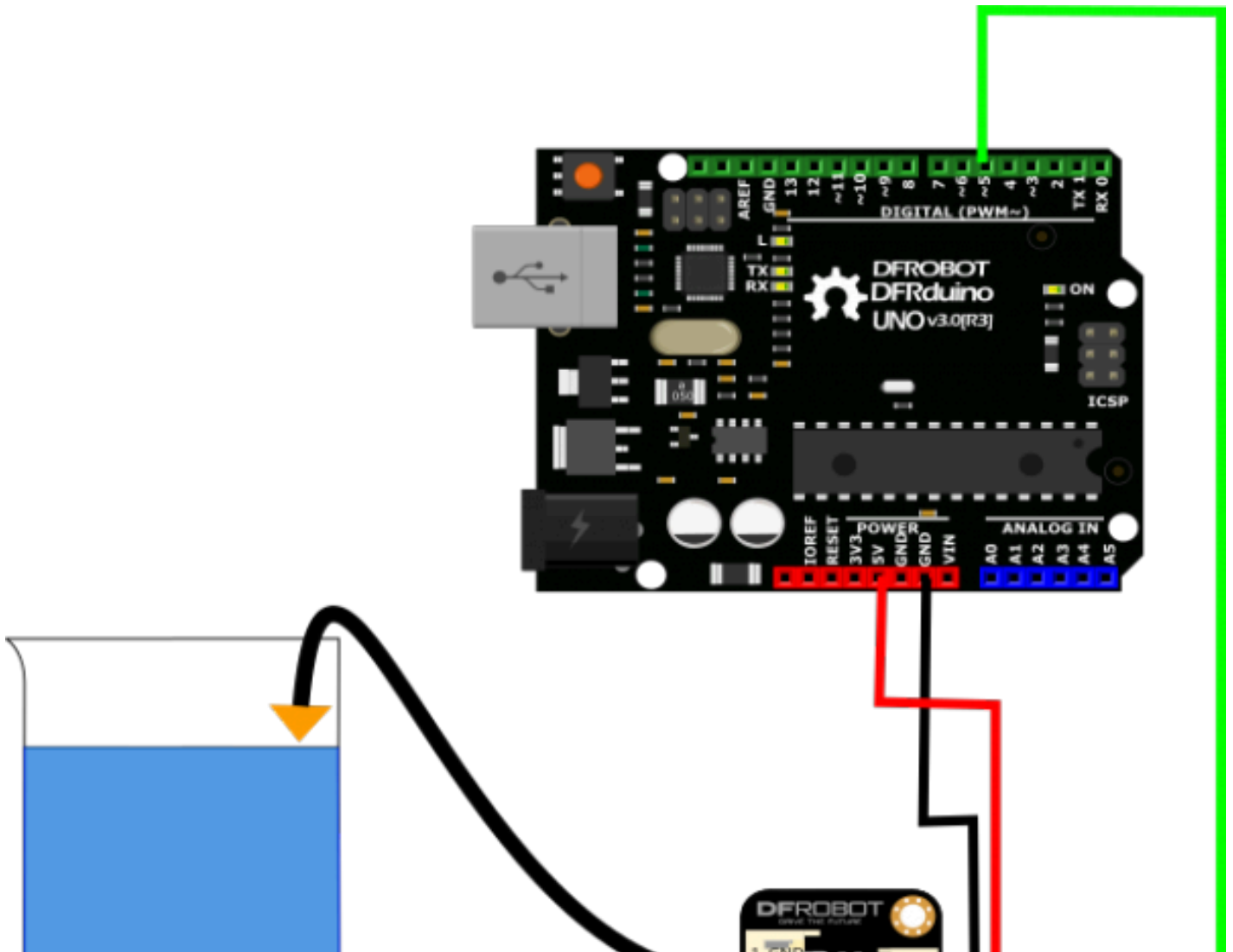
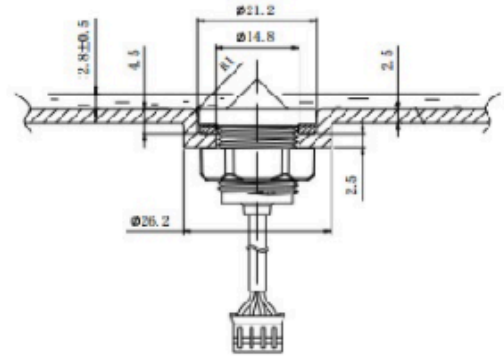
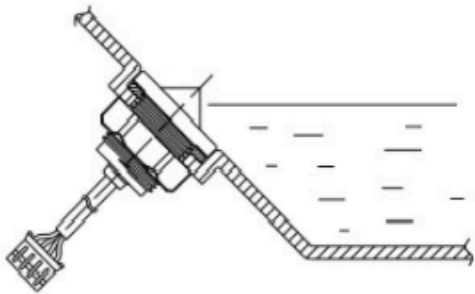
Num.	Name	Description
Left_1	GND	Probe_GND
Left_2	GND	Probe_GND
Left_3	VCC	Probe_VCC
Left_4	IN	Signal Input
Right_1	OUT	Signal Output
Right_2	VCC	VCC
Right_3	GND	GND

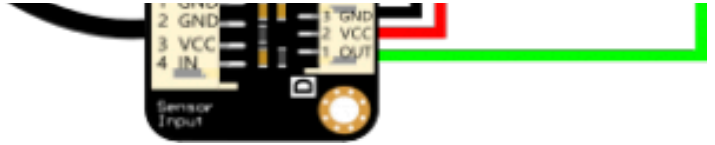
# Tutorial

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## Installation







## Requirements

- **Hardware**
  - DFRduino UNO x1
  - Liquid Level Sensor-FS-IR02 x1
- **Software**
  - Arduino IDE Click to Download Arduino IDE from Arduino® (<https://www.arduino.cc/en/software>)

## Sample Code

```
/*!  
 * @file SEN0205.ino  
 * @brief This example is to get liquid level. (Liquid Level Sensor-FS-IR02)  
 * @copyright Copyright (c) 2010 DFRobot Co.Ltd (http://www.dfrobot.com)  
 * @license The MIT License (MIT)  
 * @author jackli(Jack.li@dfrobot.com)  
 * @version V1.0  
 * @date 2016-1-30  
 */  
  
int liquidLevel = 0;  
  
void setup()  
{  
  Serial.begin(9600);  
  pinMode(5, INPUT);  
}  
  
void loop()  
{  
  liquidLevel = digitalRead(5);  
  Serial.print("liquidLevel= "); Serial.println(liquidLevel, DEC);  
  delay(500);  
}
```

}

## Expected Results

When liquid comes in to contact with the sensor probe the microcontroller will output HIGH logic. When the liquid is not in contact with the probe the microcontroller will output LOW logic.

## FAQ

Q&A	Some general Arduino Problems/FAQ/Tips
A	For any questions, advice or cool ideas to share, please visit the <b>DFRobot Forum</b> ( <a href="https://www.dfrobot.com/forum/">https://www.dfrobot.com/forum/</a> ).

## More Documents

Schematic

(<https://dfimg.dfrobot.com/nobody/wiki/6014d154bd4fb62f7cbdc51d57a7ccf1.pdf>)

Layout

(<https://dfimg.dfrobot.com/nobody/wiki/f037cdb33e1e0e9e393e9d93c26d58da.pdf>)

SVG file

(<https://dfimg.dfrobot.com/nobody/wiki/b012b60fdbb685c8550298a123eb50b0.rar>)