Liquid Level Sensor-FS-IR02 SKU: SEN0205

From Robot Wiki

Contents

Introduction

This is a photoelectric liquid level sensor that is operates using optical principles. The advantages of this are good sensitivity and no need for mechanical parts - meaning less calibration! The corrosion resistant probe is easily mounted and can handle high temperature and high pressure. The sensor is equipped with an interface adapter for compatibility with the DFRobot "Gravity" interface.

Specification

- Model: FS-IR02
- Type: Photoelectric Liquid Level Sensor
- Operating Voltage: 5V DC
- Output Current: 12mA
- Operating Temperature: - 25 ~ 105 ℃
- Low Level Output: < 0.1 V
- High Level Output: > 4.6 V
- Liquid Level Detection Accuracy: ±0.5 mm
- Material: Polycarbonate
- Measuring Range: No limit
- Life: 50,000 hours

Board Overview

Liquid Level Sensor-FS-IR02

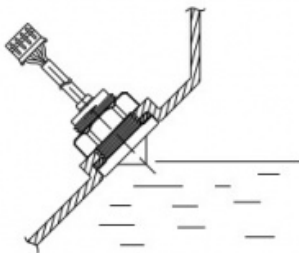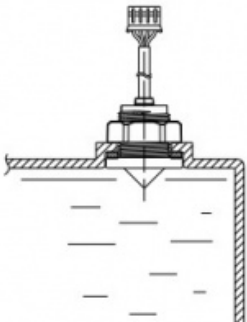| Liquid Level Sensor-FS-IR02 Pin Mappings		
Num.	**Name**	**Description**
1 (Red)	GND	Probe_GND
2 (Yellow)	GND	Probe_GND
3 (Blue)	VCC	Probe_VCC
4 (Whitel)	OUT	Signal Output

Liquid Level Sensor-FS-IR02 convert board

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
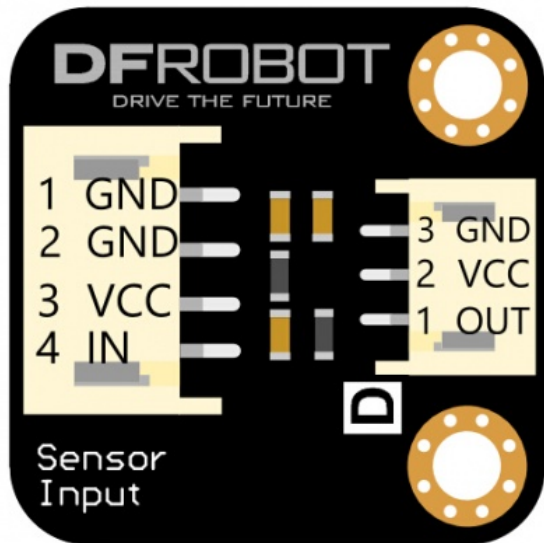
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Tutorial

Installation
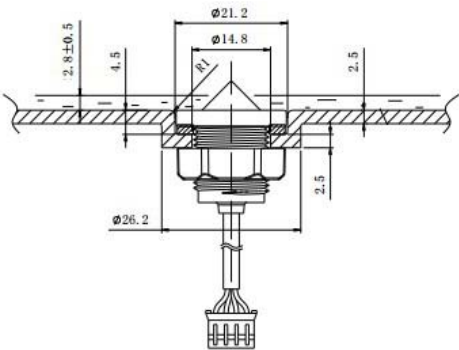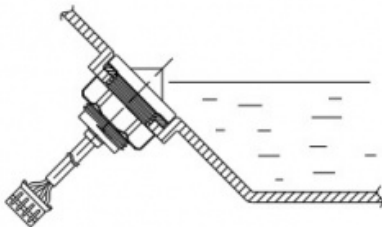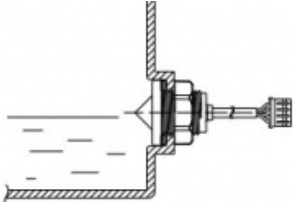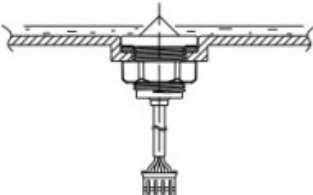
Requirements
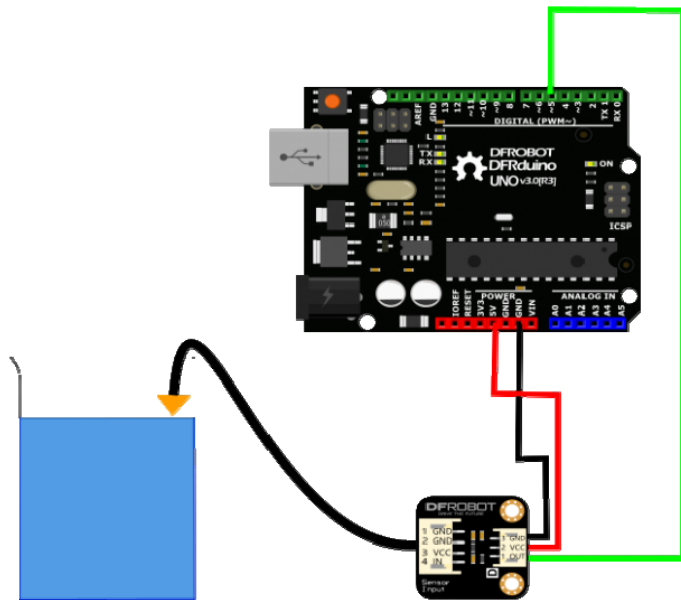
- **Hardware**
  - DFRduino UNO x1
  - Liquid Level Sensor-FS-IR02 x1
- **Software**
  - Arduino IDE Click to Download Arduino IDE from Arduino®
  - https://www.arduino.cc/en/Main/Software

Sample Code

```
/*************************************************
 2 * Liquid Level Sensor-FS-IR02
 3 * ***************************************************
 4 * This example is to get liquid level
 5
 6 * @author jackli(Jack.li@dfrobot.com)
 7 * @version  V1.0
 8 * @date   2016-1-30
 9
10 * GNU Lesser General Public License.
11 * See <http://www.gnu.org/licenses/> for details.
12 * All above must be included in any redistribution
13 * ***************************************************/
14 int Liquid_level=0;
15 void setup() {
16  Serial.begin(9600);
17  pinMode(5,INPUT);
18 }
19
```

```
20 void loop() {
21 Liquid_level=digitalRead(5);
22 Serial.print("Liquid_level= ");Serial.println(Liquid_level,DEC);
23 delay(500);
```

24 }

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

For any questions, advice or cool ideas to share, please visit **DFRobot Forum**.