



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.

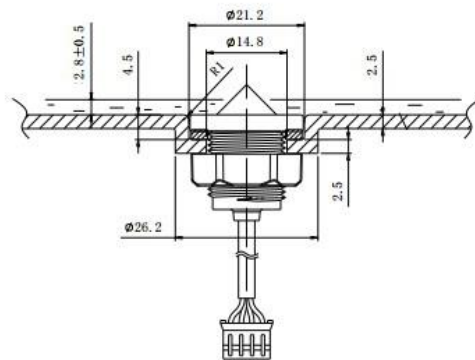
Specification

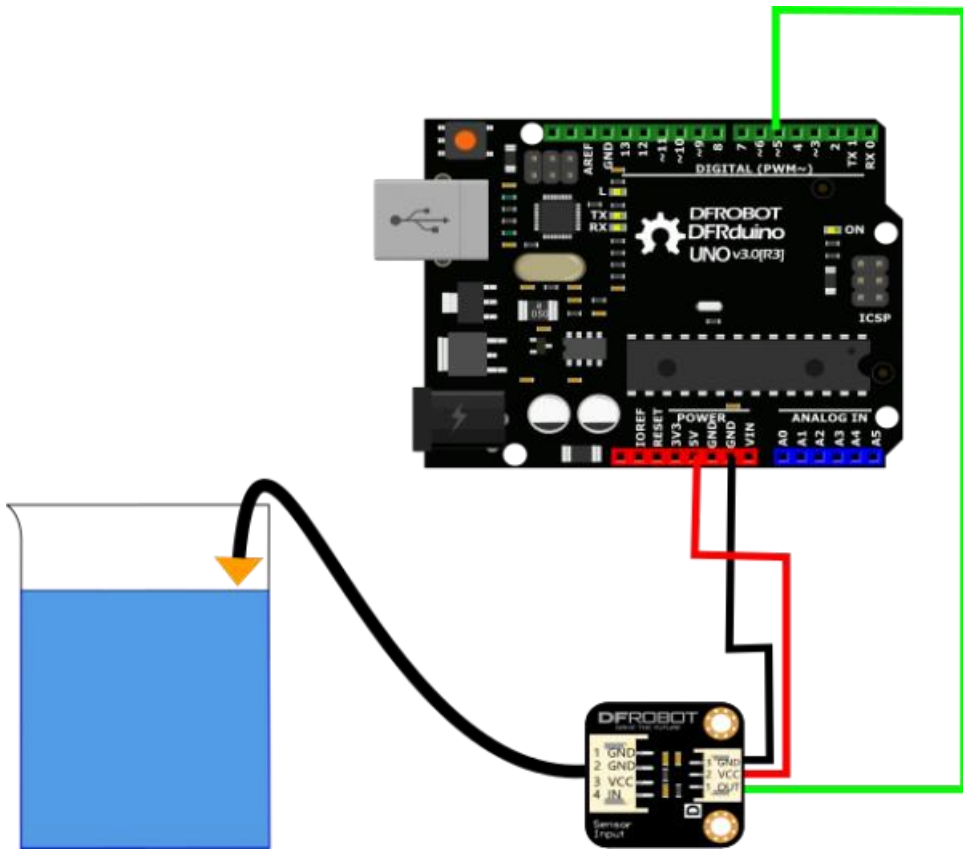
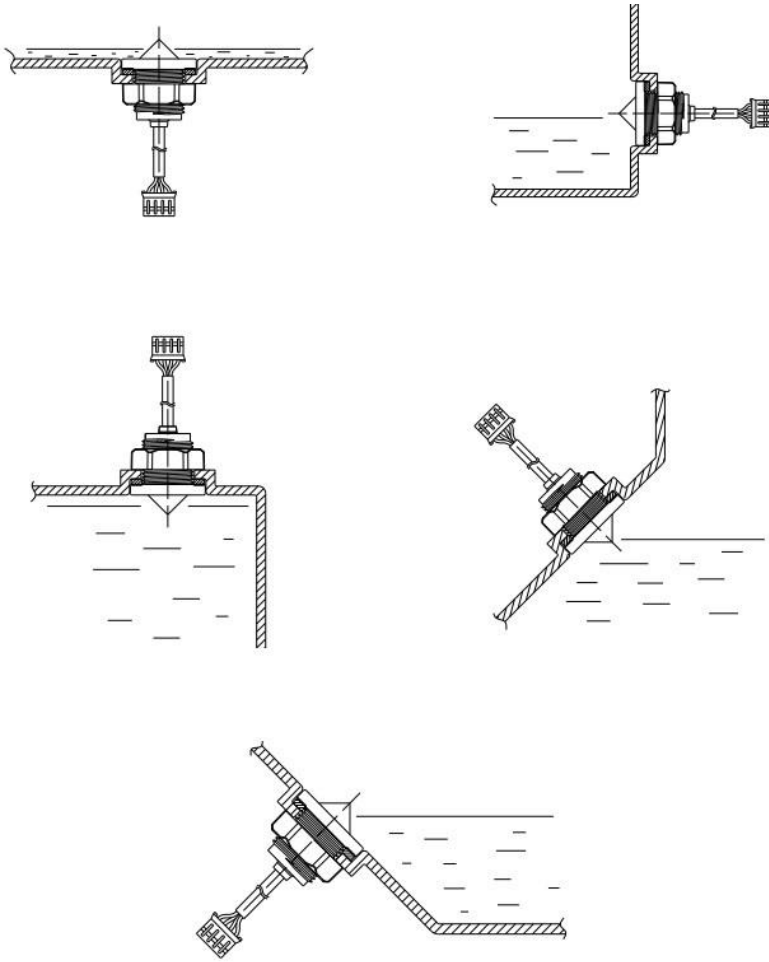
- Model: FS-IR02
- Type: Photoelectric Liquid Level Sensor
- Operating Voltage: 5V DC
- Output Current: 12mA
- Operating Temperature: - 25 ~ 105 °C
- Low Level Output: < 0.1 V
- High Level Output: > 4.6 V
- Liquid Level Detection Accuracy: ± 0.5 mm
- Material: Polycarbonate
- Measuring Range: No limit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

Board Overview

Liquid Level Sensor-FS-IR02 Pin Mapping			Liquid Level Sensor-FS-IR02 Pin Mappings		
Num.	Name	Description	Num.	Name	Description
Left_1	GND	Probe GND	1 (Red)	GND	Probe GND
Left_2	GND	Probe GND	2 (Yellow)	GND	Probe GND
Left_3	VCC	Probe VCC	3 (Blue)	VCC	Probe VCC
Left_4	IN	Signal Input	4 (White)	OUT	Signal Output
Right_1	OUT	Signal Output			
Right_2	VCC	VCC			
Right_3	GND	GND			

Installation





Requirements

- **Hardware**
 - DFRduino UNO x1
 - Liquid Level Sensor-FS-IR02 x1
- **Software**
 - Arduino IDE [Click to Download Arduino IDE from Arduino®](#)

Sample Code

```
/****** Liquid Level Sensor-FS-IR02*  
***** This example is to get  
liquid level* @author jackli(Jack.li@dfrobot.com)* @version V1.0* @date 2016-1-  
30* GNU Lesser General Public License.* See <http://www.gnu.org/licenses/> for  
details.* All above must be included in any redistribution*  
*****/int Liquid_level=0;void  
setup() { Serial.begin(9600); pinMode(5,INPUT);}void loop()  
{Liquid_level=digitalRead(5);Serial.print("Liquid_level=  
");Serial.println(Liquid_level,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 DFRobot Forum .