Control Liquid / Water Level Sensor Floating Switch with Arduino

Introduction:

Liquid / Water Level Sensor Floating Switch or A float switch is a device used to sense the level of liquid within a tank. The switch may actuate a pump, an indicator, an alarm, or other device. This mini float switch contains no for mercury.

Liquid level sensor using imported switching elements, with lightweight, the working principle is simple, reliable, inexpensive features. Products can be used for drinking fountains, water heaters, solar, air conditioners, humidifiers, bathroom equipment, vending machines, tanks, water towers, chemical liquid level control, kitchen equipment, water heaters, etc.

Features:-

- Can be used to sense the level of liquid in a tank.
- Can activate a pump, an indicator, an alarm or other device.
- Use it with hydroponics, saltwater tank, freshwater tank, gardening, aquariums for power head control, pet bowls, fish tanks, filtration, heating, or whatever your project may be

Specs:-

- Maximum Load: 50 W.
- Max Switching Voltage: 250V.
- Minimum Voltage: 100V DC.
- Maximum Switching Current: 0.5 A.
- Max Load Current: 1.0 A.
- Temp Rating: -20~+80.
- Cable Length: ~34.5cm.
- Size: ~4cm x 1.8cm.

Objective:-

In this tutorial the Serial Monitor in Arduino IDE will be displaying the water level status. Which mean when the water level is high "WATER LEVEL - HIGH" will be displayed (LED turn ON) and when the water level low it will display "WATER LEVEL - LOW" (LED turn OFF).

Components Needed:-

- Liquid / Water Level Sensor Floating Switch
- Arduino UNO
- LED
- Breadboard
- Resistor 10K ohm
- Few Jumper Wires

Procedures:-

Step 1: Connect the Arduino UNO and the sensor based on the diagram below. Connect jumper yellow wire in the red circle (below) to the Floating Switch sensor terminal.
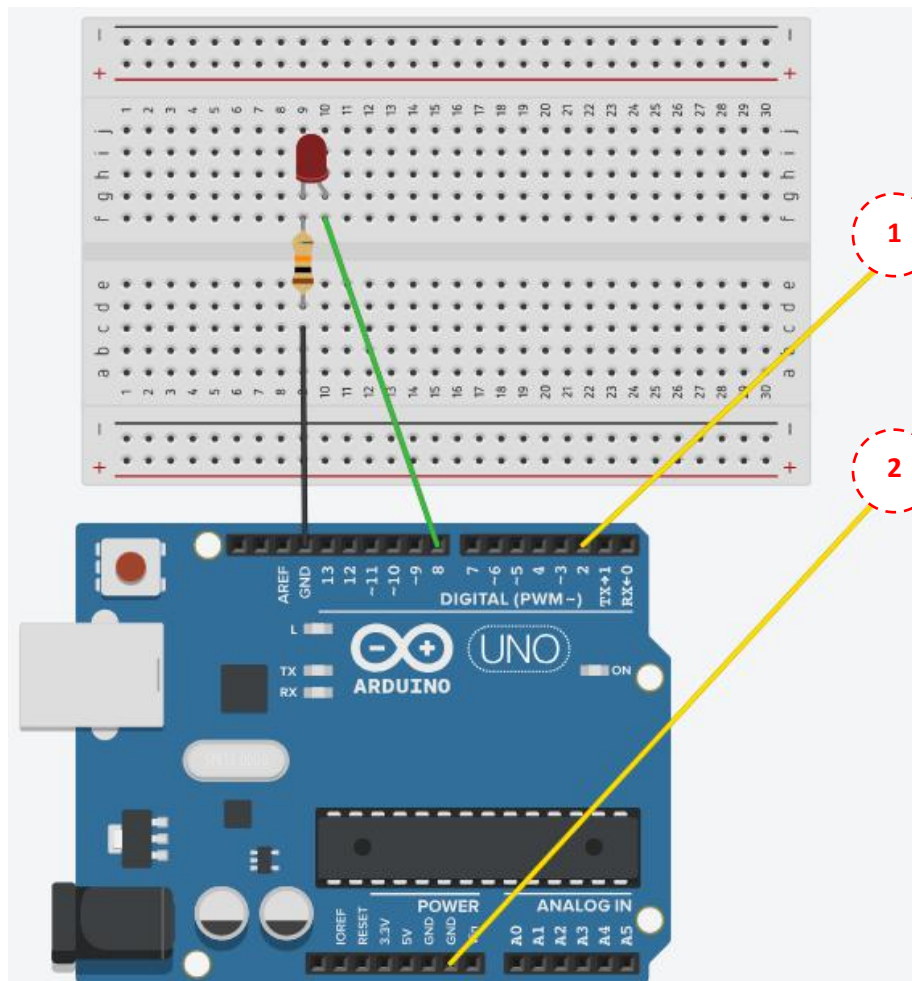
Step 2: Open Arduino IDE on PC and insert the given code below.

```
#define Water_Level_Sensor 2
#define LED            8

int buttonState = 1;   // variable for reading the pushbutton status

void setup()
{
  pinMode(LED, OUTPUT);
  Serial.begin(9600);
  pinMode(Water_Level_Sensor, INPUT);
}
void loop()
{
  buttonState = digitalRead(Water_Level_Sensor);
  if (buttonState == HIGH) {
  Serial.println( "WATER LEVEL - LOW");
  digitalWrite(LED, LOW);
  }
  else {
  Serial.println( "WATER LEVEL - HIGH" );
  digitalWrite(LED, HIGH);
  }
  delay(300);
}
```
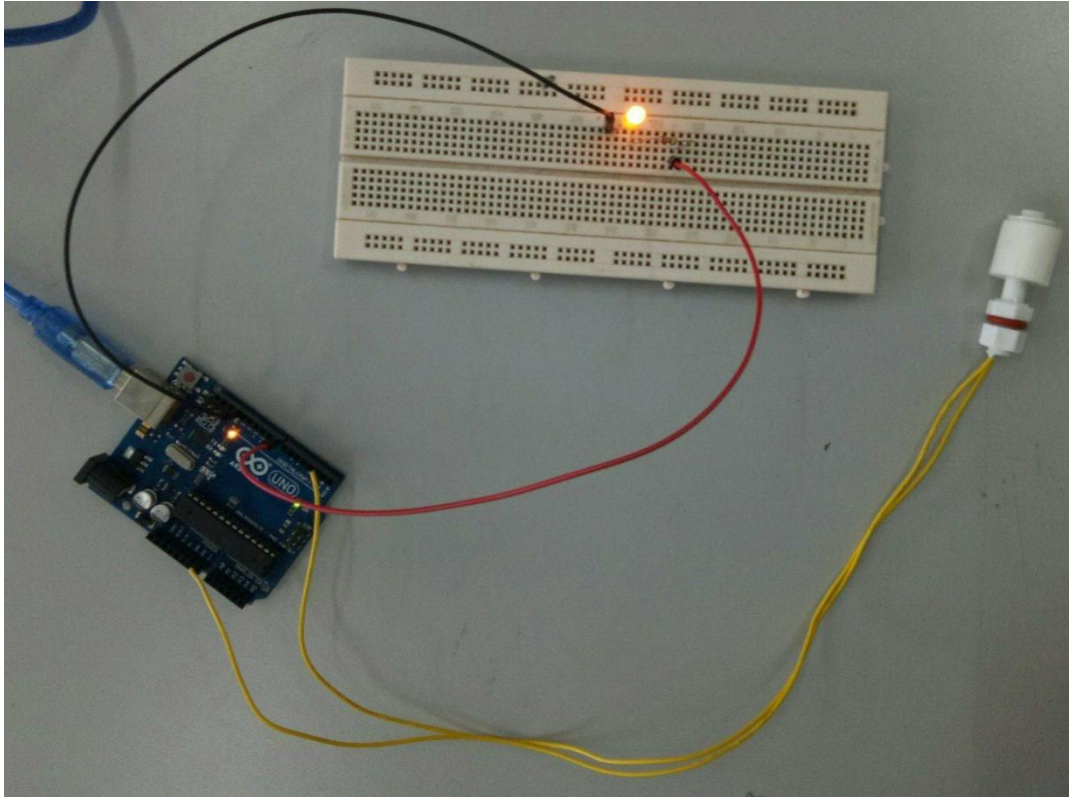
Step 3: After that, connect the Arduino UNO to the PC. Then click upload to start compiling and uploading program to the board.
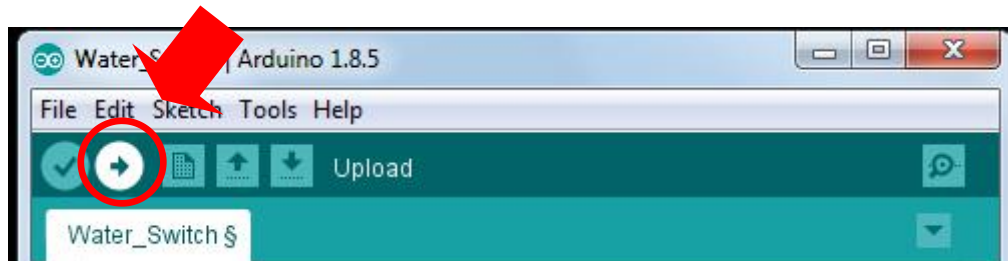
Step 4: After all step above completed, put the sensor in water and check the serial monitor tab to see the result.

Circuit Connection Reference:-

Additional Notes...

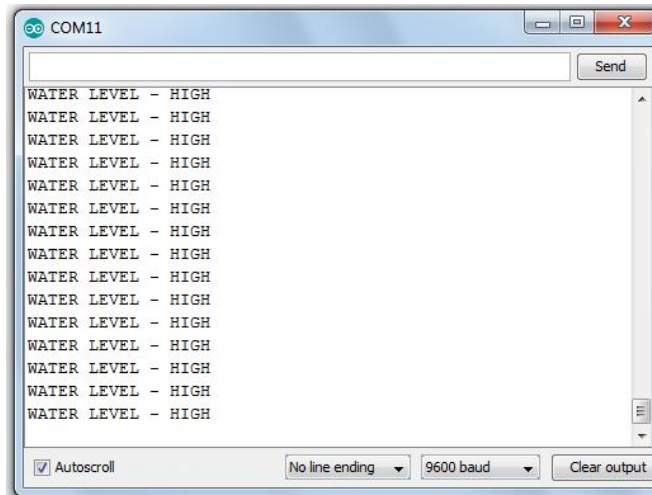**For Arduino and Sensor Connection (***this sensor doesn't have polarity***):-**

- Terminal 1 > GND
- Terminal 2 > D2

For LED and Arduino Connection:-

- LED > D8
- LED > GND

Attachments:-

Water Level = LOW	Water Level = HIGH