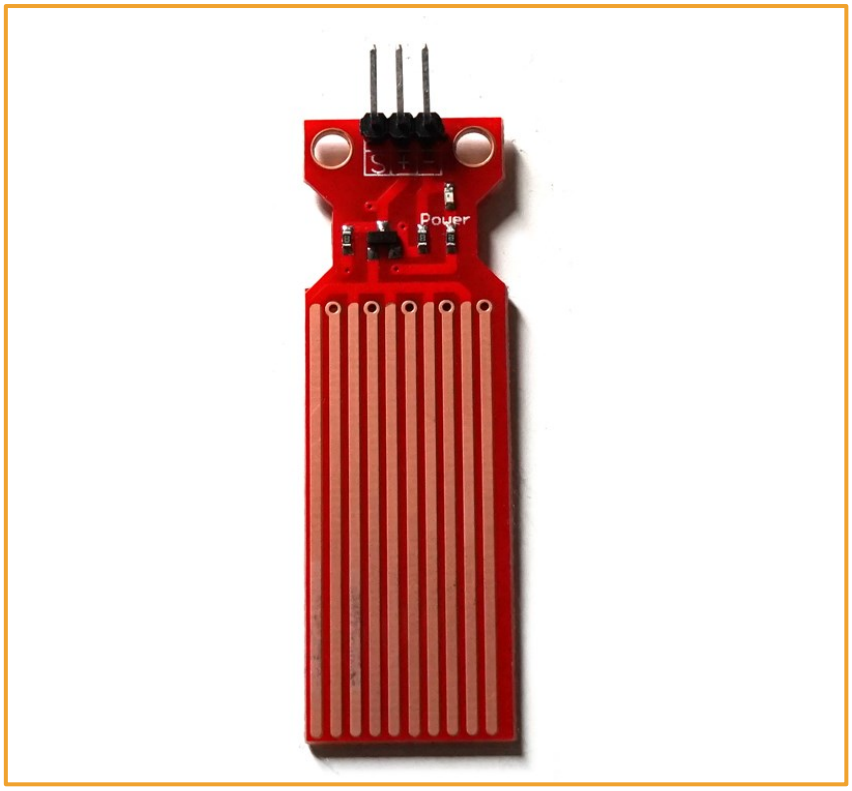
High Sensitivity Water Sensor

Introduction



Water sensor brick is designed for water detection, which can be widely used in sensing the rainfall, water level, even the liquid leakage. The brick is mainly comprised of three parts: An Electronic brick connector, a 1MΩ resistor and several lines of bare conducting wires.

This sensor works by having a series of exposed traces connected to ground and interlaced between the grounded traces are the sens traces. The sensor traces have a weak pull-up resistor of 1 MΩ. The resistor will pull the sensor trace value high until a drop of water shorts the sensor trace to the grounded trace. Believe it or not this circuit will work with the digital I/O pins of your Arduino or you can use it with the analog pins to detect the amount of water induced contact between the grounded and sensor traces.

This item can judge the water level through with a series of exposed parallel wires stitch to measure the water droplet/water size. This item can easily change the water size to analog signal, and output analog value can directly be used in the program function, then to achieve the function of water level alarm.This item have low power consumption, and high sensitivity, which are the biggest characteristics of this module.This item can be compatible with Arduino UNO、Arduino mega2560.

Features

- Working voltage: 5V
- Working Current: <20ma
- Interface: Analog
- Width of detection: 40mm×16mm
- Working Temperature: 10℃~30℃
- Weight: 3g
- Size: 65mm×20mm×8mm
- Arduino compatible interface
- Low power consumption
- High sensitivity
- Output voltage signal: 0~4.2V

Pin Definition

"S" stand for signal input

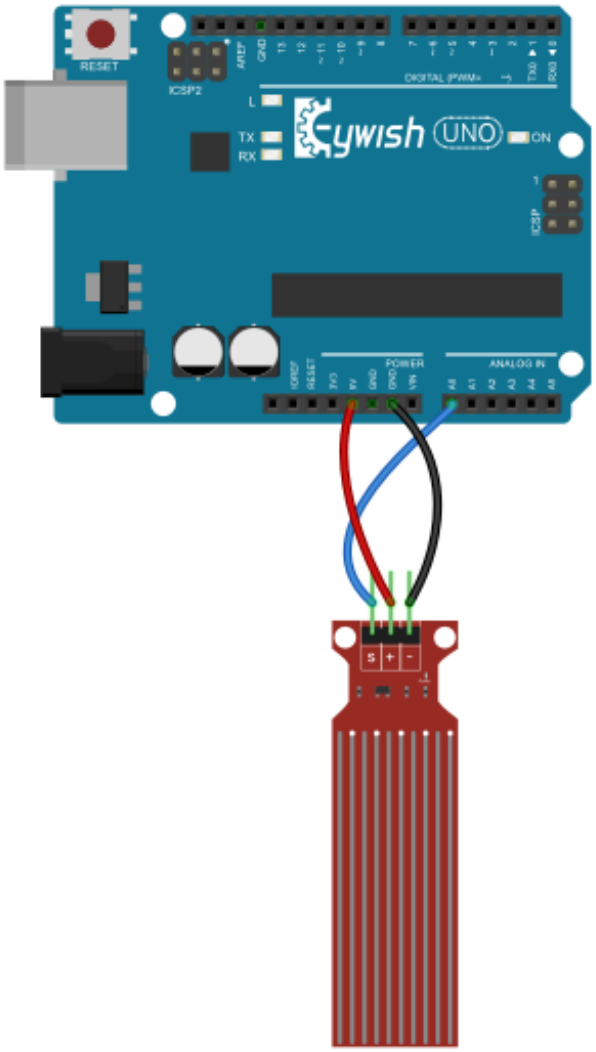
"+" stand for power supply

"-" stand for GND

Component List

- Keywish Arduino UNO R3 Mainboard
- Breadboard
- USB cable
- lcd1602 * 1
- Water sensor * 1
- Potentiometer * 1
- Several Breadboard jumpers

Wiring of Circuit



Code

```
int analogPin=A0;

double temp,data;

void setup() {
    pinMode(analogPin,INPUT);
    Serial.begin(115200);
}
void loop() {
    // put your main code here, to run repeatedly:
    temp=(long)analogRead(0);
    data=(temp/650)*4;
    Serial.print("the depth is:");
    Serial.print(data);
    Serial.println("cm");
    delay(1000);
}
```

Experiment Result