Device description

1. Arduino

Arduino is an electronic device that can read input, process the input, and provide output as a normal computer does. It is an open- source platform which can be modified as required. Arduino is being used worldwide in any of the IOT projects and is advantageous to all teachers and students. In our project, we have connected Arduino with breadboard, ultrasonic sensor, and relay module.

1. Breadboard

Breadboard also known as protoboard, is also an electronic device that is used along with Arduino or other types of devices like Node MCU. It is called so as these breadboards doesn’t require soldering and are reusable. In our project, we have connected breadboard to the Arduino, and we have used some resistors and LEDs according to our program installed in Arduino.

1. Ultrasonic Sensor

Ultrasonic sensors are the types of sensors that simply measures distance by using ultrasonic waves. The sensors kept in this device emits the ultrasonic waves and receives the reflected wave from the object or any target. The time between the emission and reception is used to measure the distance between the sensor and object. In our project, we have connected Ultrasonic sensors to the breadboard and Arduino and the distance measured is indicated by the LED installed in the breadboard.

1. Relay module

Relay module uses electromagnet to operate. It is an electrical switch that uses the theory of electromagnetism to convert small electrical stimuli to large. In our project we have connected our relay module to the Arduino and programmed as required.

1. LED  
   LED, Light-emitting diodes are simply the semiconductor device that glows when electricity is passed through it. In our project, we have used LED to indicate the distance of the water that is calculated with the help of ultrasonic sensor.
2. Resistors

Resistors are the devices that controls the flow of electrical current. Resistors helps to manage the current flow within a circuit so that the required amount of energy is only passed through the circuit. In our project, we have used resistors to light LED so that any volt provided will be able to light LED.

1. Jumper Wires

Jumper wires are simply the wires that are used to connect two points. In our project, we have used jumper wires everywhere. We have use it to connect Arduino with breadboard, ultrasonic sensors, and relay module.