# EMBEDDED CONTROL OF LIQUID LEVEL IN A TANK

**Aim:-** Development of Ultrasonic based non contacting type Liquid level sensing and control for industries for home use.

**Principle:-** Non contacting ultrasonic sensors are used to measure the liquid level in reservoir and its filling is ensured if the level falls below a certain pre-defined level.

**Working of Circuit:-**

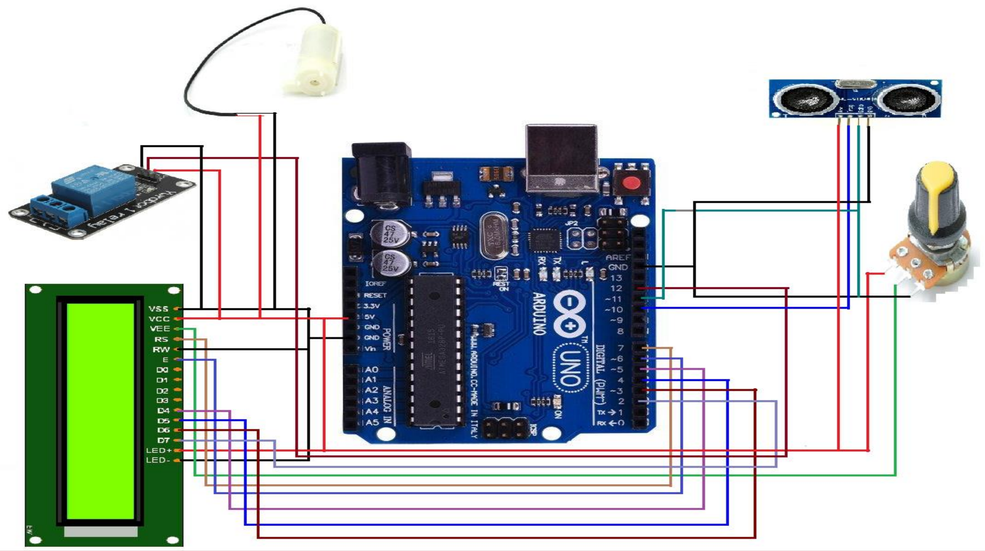
Schematic of the circuit is simple and as shown below. It has a ultrasonic sensor connected to Arduino-UNO board. This setup measures the level of water in container and based on liquid level in the reservoir, the pump is either turned ON or OFF to insure the sufficient level of water in the tank.

**Application:-**

To ensure a sufficient water level in a tank and hence save one from overflow or underflow of water tank situation.

**By:-** *Niharika Srivastava*
*Cyber Shadez 2019*
*FCAIT, GLS University*


**Circuit Diagram:-**




**Conclusion:-**

This circuit presents a very flexible management of the liquid level control which is often needed to be altered in an industrial process. Any invasive methodology becomes a severe roadblock in altering the process in case if a need arises to alter the filling. This system gives full freedom to the user to setup the higher and lower filling levels as per the need without having to do any modification and perform it with software.

**Results:-**

The development of this scheme is not very complicated and has been configured with an Embedded System with LCD based GUI that performs as per the requirement. It does not need any regular electrode maintenance or replacement as it does not have electrodes dipped in the liquid. Corrosion due to dipping in liquid is a major concern that is eliminated in this scheme. Arduino-UNO is used as Programmable Logic Controller(PLC) and performed the task continuously & reliably in test.