



# PRESIDENCY UNIVERSITY

Private University Estd. in Karnataka State by Act No. 41 of 2013

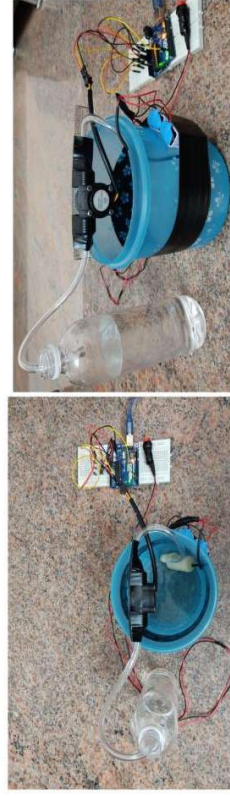


## SCHOOL OF ENGINEERING

### INNOVATIVE PROJECT-ARDUINO USING EMBEDDED 'C'(CSE1002)

#### "Designing of PIT VOLUME TOTALIZER using Arduino"

#### IPC-10



If you have ever visited large scale manufacturing companies, the first thing you will notice is that they are all automated. Soft Drink Industries and Chemical industries have to constantly measure and quantify the liquids that they are handling during this automation process, and the most common sensor used to measure the flow of a liquid is a Flow Sensor. By using a flow sensor with a microcontroller like Arduino, we can calculate the flow rate, and check the volume of liquid that has passed through a pipe, and control it as required. Apart from manufacturing industries, flow sensors can also be found in the agriculture sector, food processing, water management, mining industry, water recycling, coffee machines, etc. Further, a water flow sensor will be a good addition to projects like Automatic Water Dispenser and Smart Irrigation Systems where we need to monitor and control the flow of liquids. In this project, we are going to build a water flow sensor using Arduino. We will interface the water flow sensor with Arduino, and program it to display the volume of water, which has passed through the valve and the flow rate. For this particular project, we are going to use the YF-S201 water flow sensor, which uses a hall effect to sense the flow rate of the liquid.

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