

A LIQUID BOTTLE-FILL SYSTEM

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ABSTRACT

As its name implies, A Liquid Bottle-Fill System is a controller system that fills up a bottle according to weight. The input of this system will be the switches to select the amount of liquid. The selection of the amount is according to the size of bottle. A signal will be sent wirelessly to indicate the turning on of motor (pump). Then, liquid is drawn from tank and flow through pipe lines thus fills up the bottle. At the end of pipe, a flow meter is built to measure the flow rate. The flow meter is displayed on LCD. As the load cell detects the selected weight, another signal will be sent wirelessly to indicate the turning off of motor (pump).

This project is divided into hardware design and software development. Hardware design consists of the construction and implementation of circuits for microcontrollers, load cell, transmitter and receiver module, motor, pump, flow meter and LCD. Software development involves the programming of 3 microcontrollers where first microcontroller is used to interface between switches and load cell. A second microcontroller is used to turn on the motor. The last microcontroller is used to program and display flow rate on LCD.