

ABSTRAK

Dispenser is a tool to put a gallon of drinking water at the opening and closing using a lever taps. Currently there are dispensers in general an electronic technology that is applied in the opening and closing. Thus the making of the final project aims to provide convenience in pengoperasian this dispenser.

In this Final Project will be realized an automatic water dispenser to simplify the user fetching drinking water also comes with Ultrasonic Sensor. The working principle of this device is using the Ultrasonic Sensor where the sensor serves to determine the position of the glass under the tap dispenser. When the sensor reading Yag predetermined distance from the ultrasonic sensor into a glass, sensor data will be forwarded to the microcontroller serves as the sender signal from Ultrasonic sensors. After the microcontroller receives data from ultrasonic sensors, Servo Motor will work to attract the dispenser water faucet. After replenishing water in the cup reaches the full distance of the volume of water that has been determined, then the ultrasonic sensors transmit data signals to the servo motor to turn off the faucet of the dispenser.

From the test results glasses the presence of some glasses that can and can not. Or glasses that can fit in with this dispenser is height glass size of 8.5 cm to 10.5 cm in diameter and the smallest is 2 cm . The glasses are larger than 10.5 cm can not be in use because it is not high muatnya glasses over 10.5 cm to where the tap dispenser . As a result, the glass will be pushed out when the servo release dispenser faucet . For testing glass is glass that can not be less than the height of 8 cm and the smallest diameter of 2 cm . Because when the glass height of less than 8 cm in dispenser faucet put in place will result in filling a glass of drinking water would overflow or full once

Keywords: *Dispenser, Microcontroller Arduino Uno, Ultrasonic, Servo Motor*

