

Voice Based Hot/Cold Water Dispenser System Using Arduino

S¹B.Anusri, S²B.Arthi, S³C.Arthi, S⁴M.Arthinisha

P¹Ms., S.Akila, Assistant professor

¹Professor (Assistant) of EEE Department, BIEW (ANNA UNIVERSITY), DEVIYAKURICHI,

^{2, 3, 4, 5}Student OF EEE Department, BIEW (ANNA UNIVERSITY), DEVIYAKURICHI,

^{1, 2, 3, 4, 5} Department of Electrical and Electronics Engineering,

Bharathiyar Institute of Engineering for Women (ANNA UNIVERSITY),

Deviyakurichi,

Tamil Nadu, India - 636112

ba9872456@gmail.com, arthibaskar0912@gmail.com, arthic171@gmail.com,

marthinisha0806@gmail.com _

ABSTRACT:

BACKGROUND AND OBJECTIVE;

This system is fully based on voice sensor, which uses Arduino circuit, this water dispenser system also uses IR sensor, voice sensor, mic, jars for storing water, pipes and motor. In this project the voice is detected by the voice sensor, then the sensor sends the respective information to the microcontroller, to understand whether the water required by the person should be hot or cold.

METHODOLOGY: The microcontroller processes the information to the IR sensor to determine where the glass is placed below the pipe or not. The system uses IR sensors to detect the presence of water glass and then /the IR sensor sends the signal to the micro controller about the presence of the glass, accordingly the motor starts and the water flows through the pipes from the particular jar (hot/cold). If the glass is not placed, the water does not come. .

KEYWORDS: Microcontroller, Bluetooth Module, IR sensor, Voice sensor.

1.INTRODUCTION

Voice Based Hot- Cold Water Dispenser System using Arduino is the project which will be very useful for old-age people and disabled people, basically for one' s who cannot perform basic activities efficiently. It is this idea which corresponds to the new area of automation and technology. The main of this automation system is to make like easier .Mobile devices are very common among everyone due to its user - friendly interface and portability features. In this project we aim to control electrical home appliances by android and voice commands using Bluetooth .

1.IMPLEMENTATION

WATERDISPENSER SYSTEM

In this research paper, we are using voice commands to get cold or hot waters. By using Bluetooth we can give our commands. Based on that we will get water .IR sensors are placed tocheck the glass presence. This system is fully based on voice command, which uses Arduino Uno board, this water dispenser system also uses IR sensor, jar for storing water, pipes and motor. Inthis project the voice is detected by the Bluetooth Module, then the sensor sends the respective information to the microcontroller.

The water required by the person should be hot or cold. The micro controller processes the information to the IR sensor to determine where the glass is placed below the pipe or not. The system uses IR sensor is to detect the presence of water glass, according the motor starts and the water flows through the pipes from the particular (hot/ cold).I f the glass is not placed, the sensor sends respective signal to the motor,which does not cause the water to flow through the pipe until the glass is placed. This system can be used at home, offices etc.to get hot or cold water by just giving voice command. performed like here all are is displayed.

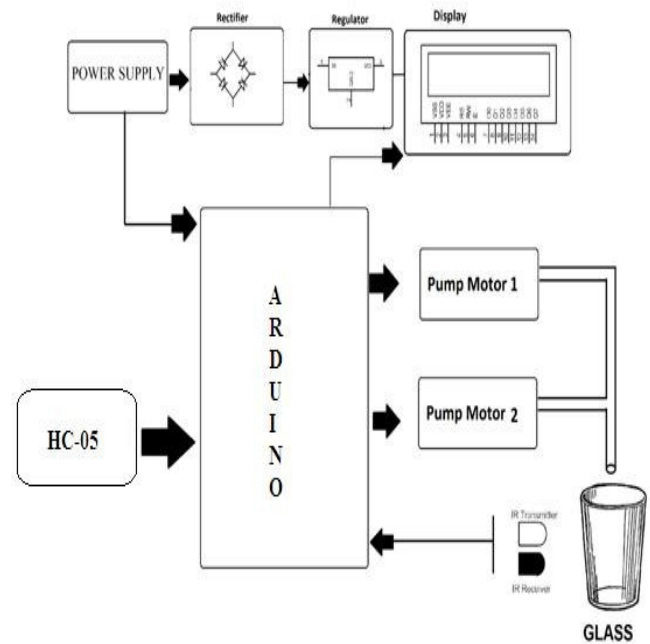


Fig2.1 Block diagram of proposed system

LCD DISPLAY:

The command register stores the command instructions given to the LCD. A command is an instruction given to LCD to do a predefined task like initializing it, clearing its screen, setting the cursor position, controlling display etc. The data register stores the data to be displayed on the LCD. The data is the ASCII value of the character to be displayed on the LCD. To about internal structure of a LCD.

DC GEAR MOTOR:

Geared DC motors can be defined as an extension of DC motor which already had its Insight details [here](#). A geared DC Motor has a gear assembly attached to the motor. The speed of motor is counted in terms of rotations of the shaft per minute and is termed as RPM .The gear

assembly helps in increasing the torque and reducing the speed. Using the correct combination of gears in a gear motor, its speed can be reduced to any desirable figure. This concept where gears reduce the speed of the vehicle but increase its torque is known as gear reduction. [3] proposed a novel method for secure transportation of railway systems has been proposed in this project. In existing methods, most of the methods are manual resulting in a lot of human errors. This project proposes a system which can be controlled automatically without any outside help. [5] discussed that the activity related status data will be communicated consistently and shared among drivers through VANETs keeping in mind the end goal to enhance driving security and solace.

1. CONCLUSION:

This work is easy in Operation and cost maintenance is low. Hence this project is mostly designed to get the hot or cold water by giving through our own voice command. This is mainly very useful for old age people and in Hospitals and one's who cannot perform basic activities efficiently.

2. REFERENCES

[1] Sonalisen, shamik chakrabarty, Raghav Toshniwal, ankita Bhaumik." Design of an Intelligent Voice Home Automation System." Department of Computer Science St Xavier's College, Kolkata international

Journal of Computer Applications
(0975-
8887) Volume 121- N0.15, July 2015.

- [2] Mukesh Kumar, shimi S.L, "Voice Recognition Based Home Automation System for Paralyzed People" International Journal of Advanced Research in Electronics and Communication Engineering(IJARECE) Volume 4, Issue 10,October 2015.
- [3] Christo Ananth, K.Nagarajan, Vinod Kumar.V., "A Smart Approach For Secure Control Of Railway Transportation Systems", International Journal of Pure and Applied Mathematics, Volume 117, Issue 15, 2017, (1215-1221).
- [4] Harshada Raj put, KarunaSawar t, dipikaShetty, Punit Shukla, Engineering and Technology, Mumbai University, Mumbai, 40098, Maharashtra, India. International Research Journal of Engineering and Technology (IRJET) Volume: 05 Issue: 04, April- 2018
- [5] Christo Ananth, Dr.S. Selvakani, K. Vasumathi, "An Efficient Privacy Preservation in Vehicular Communications Using EC-Based Chameleon Hashing", Journal of Advanced Research in Dynamical and Control Systems, 15-Special Issue, December 2017,pp: 787-792.