

ATM SYSTEM FOR COLD AN HOT DRINKING WATER AND MOBILE CHARGING

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Abstract

Though an entire industry has spurred around the lack of availability of safe drinking water in public places, the truth is that only a small percentage of the countrys population can afford the luxury of packaged water. A need that has been neglected by the government has given way to innovative initiatives to provide the populace clean and fresh drinking water. One among them is a New Delhi-based start-up JanaJal, which literally means water for people. The start-up has pioneered the concept of hybrid water dispensers, christened Water ATMs. What started as a pilot has now gradually begun to gain ground with orders from a number of state governments, pilgrim centres, and public places. This is not just another business initiative but a social enterprise, whose focus is on creating a viable business model and grooming youth to become entrepreneurs manning these water ATMs, and helping people quench their thirst, says Parag Agarwal, Founder and CMD. Explaining the concept, he says the water ATMs are a combination of appropriate technologies required to treat the water available at different sites. The companys Supremus Aqua Water Treatment System have been used to make the filtration and purification process efficient. Dually operated on solar energy and electricity, they can be remotely maintained and managed.

Keyword : - Information and Communication Technologies, IR sensor, Motor

1.Introduction

With the improvement in the technology there are many advanced devices and machines that are useful to the mankind. One of them is coin operated telephone. As we know the function of it and how it works. With the same technology used we are going to design a project which is based on liquid (water, cold rinks). Coin Operated Water Dispensing System as the name indicates it is based on COIN operation. It has been specially designed for use on Railway station, Bus deposes, public places etc. This system is based on microcontroller. The inputs to the microcontroller are coin and output in the form of water. Looking at the specifications required for Water Dispensing System and for simplicity of our application, microcontroller was found to be best suited. The use of microcontroller in any electronic equipment makes it compact and user friendly. We wanted our equipment very handy and cheap. Processor requires less access time for built -in memory and I/O Devices. When we put the coin in coin box camera catch the coin image camper to database using mat lab and give signal to ARM7. Microcontroller switched on relay and motor is on, when put the glass under the valve IR sensor is activate gives output in the form of water. A vending machine is a machine that dispenses items such as snacks, beverages, alcohol, cigarettes, lottery tickets to customers automatically, after the customer inserts currency or credit into the

machine. The first modern vending machines were developed in England in the early 19th century and dispensed postcards. Vending machine has two functions. These are selling the product and give services to customers. Vending machine will sell the product with different types of products matched with appropriate prices. After paying, the paid product becomes available by the time the machine releases it at the bottom of the vending machine. For the vending machine that provides services for the main function, the service also may become available after paying with inserted the payment. Example for the service vending machine is the Automated Teller Machine.

2. Literature Survey:

The present study bears some relationship to the previous studies conducted. These studies are given as follows:

Ushikubo (1986) invented automatic vending machines which are operated exclusively by key cards. In these machines, a magnetic card or other type of key card is employed for inducing asale. In some types of such machines, even a payment can be made using such a card. Methods of payment for purchases from automatic vending machine using a card system fall into two types; payment in advance and credit type payment. In accordance with the payment in advance method, a user purchases a card in advance for cash, which card stores data by means of a magnetizable configuration, corresponding to a given purchase price. Every time the card is used in the machine, the recorded information is appropriately changed so as to indicate the remaining credit amount. In accordance with the credit type payment method, a card holder utilizes a vending machine for a purchase using a card which has been issued to him. The amount of each purchase is stored in the machine, and the amounts debited against each card are accumulated over a predetermined period of time and are then billed to each card user at the end of that period. Its only difference is that the present study uses a coin to operate the machine rather than a card like the study mentioned. Another invention of Hart (1983), a coin operated purified water dispensing device that accurately measures and dispenses a given amount of water by hydraulic action. A pair of vertically stacked transparent pill tubes is mounted in a cabinet in visually exposed relation of a consumer operating the machine. A water dispensing nozzle is associated with each pile tube and is protected by a shroud that is specifically configured to engage the upper portion of a container to aid the consumer in properly positioning the container to be filled. The consumer activates the machine by placing the required coins in a coin chute. Acceptance of the coins effects rotation of a rotatably mounted cam that is fixedly secured to an axial alignment with a four-way valve that in turn controls the flow of water into and out of the machine. The fill tubes are capped by end plug members having specific sealing and piston is slid ably mounted for reciprocating movement within each fill tube to effect vending of a precise volume of purified water. The previous study and the present study being undertaken are closely related since both studies show the use of a coin but they differ on the method of dispensing and on the type of fluid being dispensed since the present study vends hot coffee mixtures.

3. Block Diagram System :

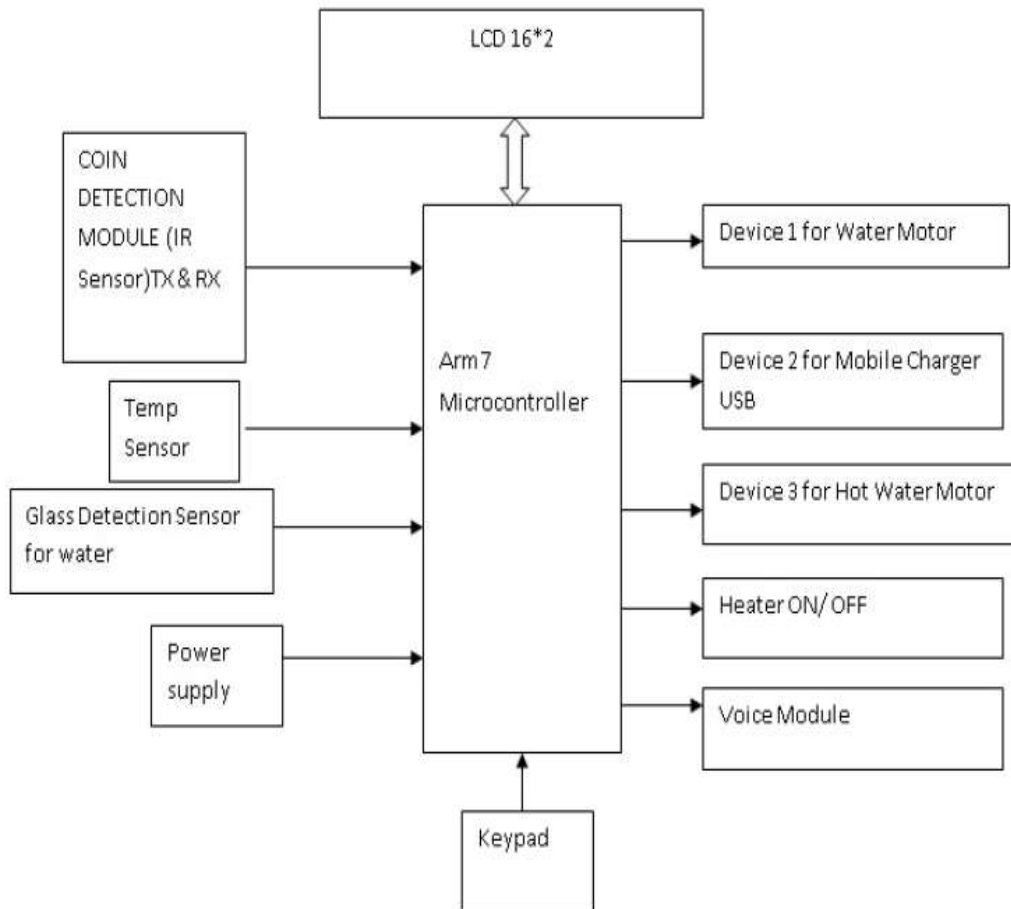


Fig: Block diagram of system

4. Objectives :

- The overall objective of this project is to provide safe drinking water [as per IS 10500 standard in a regular and inexpensive manner for different clusters access at 5 selected clusters with in Pachmarhi City. Different localities comprising of 1000 households with in Pachmarhi have been identified for this pilot project.
- To design and make a Coin-Operated Water ATM Machine that will dispense different water hot and cold.
- To provide a Water ATM machine which requires minimum space utilization while having large storage capacity.
- To determine what appropriate design will make the dispensing machine work in conjunction with a coin-slot machine.
- To determine the acceptability of the study in terms of convenience and efficiency.
- To determine the acceptable price per cup of the Water to the consumer.
- To be able to make an income generating project for the community.

5. Conclusion:

Our aim is to deliver quality water all the time. Our Automated Plants will simplify complex operations and automatically control regular operation cycles for quality, without any dependency. Reduce maintenance and service costs of the plants without compromising the quality of water and RO plant operations. The model described in this project provides a methodology that will help the person to easily fetch the water from the system. This model utilizes a holistic approach that overcomes many of the shortcomings of previously developed models and standards while building on the significant contributions previously made. Model was developed In our project we conclude that acceptance ratio is almost 100 and vending machine works on arm controller .To develop low cost water vending machine. To avoid wastage of water.

6. References:

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