

Cloud Based Automated Medicine Vending Machine

Hemawathi Ms¹, Deepikashree P², Kowsalya Ns³, Kanimozhi A⁴

¹Assistant Professor, Dept of Electronics And Communication Engineering

^{2,3,4}Dept of Electronics And Communication Engineering

^{1,2,3,4}The Kavary Engineering College

Abstract- Every human being must maintain their health to build a healthy environment. The healthcare is very important for our healthy future. This project contains a machine which is developed to provide medicine automatically with the help of RFID reader. Each and every medicine contains RFID reader. Using RFID reader, the medicine can be equipped automatically. The expiry date of the medicine will be informed to the stock vendor through IoT. After receiving the alert information they will remove the expired medicine and refill the medicine. The medicine allows the low quantity of medicine, it doesn't provide higher quantity of medicine. In case if consumer needs high dosage medicine, the medicine alert by alarm. The details of the tablets will be stored in cloud based stock management. Based on health status predefined by sensors like HBS(HeartBeat Sensor), PS(Pulse Sensor),TS(Temperature Sensor) the tablets are given to person predefinedly. Additionally the add button which is used to add the tablets to the vending machine.

Keywords- RFID reader, IOT, Vending machine, Sensors.

I. INTRODUCTION

A vending machine is an automatic machine that provides items that includes snacks, beverages, cigarettes, lottery tickets, newspaper, stamps etc to consumers by paying through money credit cards etc. The first modern vending machine was developed in England in 1880's. As the vending machines are available for various purpose, it is very important to dispense the medicines from this machine. In most of the rural places, there are no such facilities of providing medicines for their illness as the hospitals and pharmacies are far away from their respective places. Hence the medicine vending machines were initially developed to fulfill the need of the rural people. It should be kept or placed in such places where the security is present for example: village government offices, institutions, colleges, schools, residential areas or buildings, apartments, organization etc. Newer technologies may consists of the large digital touch display, internet, cameras and various types of sensors with wide range of identification technology (RFID) have contributed to the developed. It can be developed using the knowledge of software, electronics and coding. It is developed

in such a way that it provides friendly environment to the consumer.

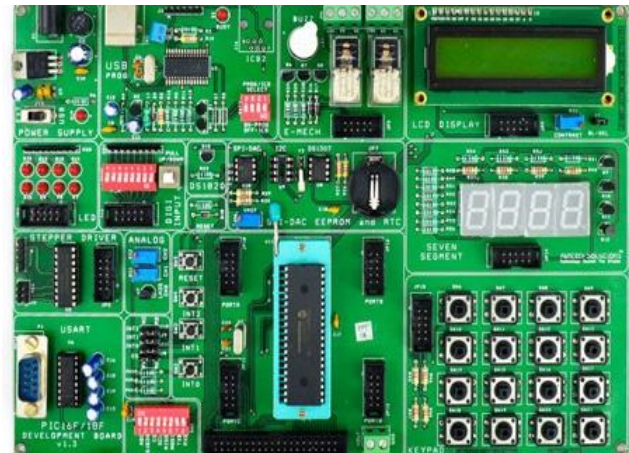


Fig:PIC16F877A MICROCONTROLLER

II. EXISTING SYSTEM

In the existing system the paper presents about, Household drugs or home medicines are normally non-prescription drugs that every family should prepare for relieving sickness. However as our survey, many small households having 1-3 members in apartments or dormitories do not have a well preparation of necessary household drugs and the worse is that some drugs have been expired. For this end, that work proposes an approach to the development of a non-prescription drug vending machine in a residential buildings for surving home medicines. They also introduce a smart way to order and get drugs using the interoperability of an application, a vending machine and a server. And also they introduce the billing the by the way of using the coin box setup. It reduces the time for the users to buy a medicine by visit a nearby medical shop. The implemented prototype demonstrates that their approach possible and feasible to serve a better service for accessing home medicines.

Drawbacks Of Existing System

The user must be literate to use the machine. The payment method is done by using coins but it can be replaced by any other cards holding money. The machine can provide the tablets for 14 types of basic ailments such as fever,

headache, dizziness etc. The high dosage of tablets can also be taken from the machine which the patient can take some wrong decisions like committing suicides etc.

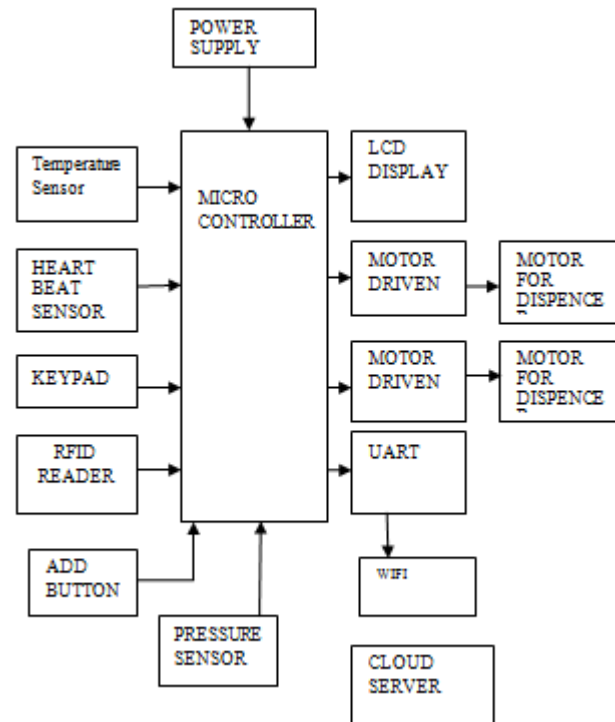
III. LITERATURE SURVEY

S. No	TITLE	DISADVANTAGES
1.	Rural Based Health Care Automated System	These include financial issues changes in work flow, temporal loss of productivity associated with EHR adoption.
2.	RFID Based Health Card System in ATM	The passive tags are cheaper, due to the high cost of active tag and their maintenance.
3.	Zhard EM Medicine Vending Machine	The space utilization rate is very low and quantity of good small. According to the material difference of the equipment body, the cost is not same.
4.	Distributed Data Vending Blockchain	They are often only limited data transforming with security and only for staff monitoring.
5.	Automatic Medicine Vending Machine	It does only Contains Limited tablets for the users and its billing method is very hard.

IV. PROPOSED SYSTEM

It is very important to maintain our health to build a healthy society. This paper contains a machine that provides medicine to the consumers automatically through RFID reader. This machine can operate in two different modes. One is RFID mode and another one is Health care mode. RFID mode is a default mode i.e., the RFID card which contains the individual identification number can be swiped into the RFID reader by the consumer and another RFID card that contains some amount of money can be swiped into the RFID reader for the payment purpose. After the payment is done, the consumer can take their respective tablets. The health care mode is the one where the consumer’s body temperature, pressure and heartbeat can be measured through their respective sensors and it is displayed on the LCD display. For this mode also, the payment is done though RFID card. The main advantage of this project is that it doesn’t allow the consumer to take high dosage tablets and the medicine with expiry date is not to given to the consumer. The tablets refilling mechanism is done by the stock vendor who get the alert messages through IOT.

V. BLOCK DIAGRAM



VI. CONCLUSION

In this project, the user friendly technique of obtaining the medicines from the machine is highlighted. The healthy care of every individual provides a vital role in building a healthy society. This machine provides the medicine of low dosage and the buzzer alerts if the consumer requests for high dosage of medicine, thus avoiding the suicides. This machine doesn’t provide the expired medicines to the consumers as the medicines are refilled and monitored by the stock vendor. It can be placed in certain places such as institutions, residential areas or building, colleges or school, universities and public areas such as bus stands, railway stations which help the consumers to take the tablets easily. The medicine vending machine is an easy technique of getting medicines.

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