



# Data Transfer through Human Body Using “Red Taction”

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**ABSTRACT:** in this modern world, everything becomes computerized and automatized. The need of human in various Scenarios were overcome by machines. In India, the supply chain for milk little dairy agriculturists, normally owning one or two cows, deliver milk to the local collection point typically located at the village itself. From the processing plant the milk is distributed to warehouses in different localities inside the city from where it is supplied to the milk dealers of the city. The present situation of the milk distribution system must be changed because of the many issues like peoples need to be stand in the queue i.e. very time consuming and makes parking issue near milk dairy. Also for distribution of Milk and collecting the money Human involvement is needed. So we propose a system in which the milk vending system cards are to be placed on the RFID reader for authentication and the required milk will be dispensed condition to balance available with customer's credit and GSM will also provide an SMS about remaining balance in account. At present people needs to avoid human involvement, so we are developing smart milk vending system. This also becomes the part of smart city.

The system can be enhanced with finger print based access in future as per people requirement.

**KEYWORDS:** RFID (radio frequency identification), GSM (global system module), SMS (Short Message Service)

## I. INTRODUCTION

The current scenario is each person using cards systems to pay the money for buying anything in the shopping malls, hotels, thus avoiding carrying the money and waiting time in the queue for paying the bills. In the milk centers there will be a big queue to collect milk because milk has to be measured and also has to receive the cash. So, to stop the waiting time in the queue and paying money through hand, the RFID reader can be used in milk centers. With the help of flow sensor we can measure the flow of milk through microcontroller, but a person is still required to collect the Money. To eliminate the human involvement a card system is used for vending or for dispensing the Milk. The card system include the RFID which consist of RFID reader and RFID tags that can be helped to the customers at the milk centers. The card used to recharge because it is prepaid tags. Using this tags milk can be vended without human interaction or involvement. Deployment of vending machine is just like an ATM and communicating to each other by a structured communication architecture and protocol.

## II. LITERATURE OF REVIEW

Vending machine has two major role that are offering the product and offer the Service to the customers. Vending machine will offer the product that install into the body with different type of product and price. After paying, a product may get to be distinctly accessible by the machine discharging it at the base of vending machine.

According to research paper [1] a hardware is interface to control a Pepsi vending machine over the World Wide Web. All the user has the prepaid account which are utilized bought soda from the Pepsi vending machine anyone with a web browser may find out if any of his or her favorite sodas are left in the machine. In reference paper [2] presented a system a smart vending machine contains a sensor and actuator network which comprises of a gateway, environmental sensors, and controllers. A gateway becomes an extension between the network and an application running on a



smartphone through Bluetooth. The gateway receives some messages related to the environmental conditions of the machine from the sensors. Those messages are sent to the application. In addition, the gateway sends control messages including the customer's preference on the taste of coffee to the controllers. In this paper [3] they proposed a vending machine with help of FSM (finite state machine) and visual automate simulator which is utilized for the book delivery service in the various institution and it accessible the various types of book like English grammar books, different references, notes and drafts. According to research paper [4] authors has described the reverse implementation of vending machine which is depends on the FPGA.it has sensors which sense the Empty container acts as an input for the machine then counter counts quantity of received containers and gives output. When the user collects their products from Vending Machine. If any product contains unused wrapper of the products, then with help of reverse Vending Machine then he will get gift or discount on the next purchase on the basis of no. of wrappers

By focusing on reference paper [5] present the attendance based system for alerting parents and automatic attendance marking using of RFID (Radio-Frequency Identification) and GSM (Global System for Mobile Communication).This framework will empower computerized and reliable attendance, informing parents and school administration about the same. For executing this framework each student and teacher will have an exceptional RFID card. A small controller is connected to the classroom door which is used to match the RFID of the student with the RFID present in the database. If they are match the door will open. This is done by using a GSM module.

### III. PROBLEM STATEMENT

Method of paying the bill for vending machine can be described in two methods or techniques. Many vending machines are capable of making change, and some of the more modern ones accepts paper money or credit cards. The method using was coin, using note, and using prepaid as payment.

- Coin operated vending machine.
- Note operated vending machine.

There are two major problems with the paying bill method nowadays. That is tank full with a coin, the notes cannot be read and also the notes or coin always stuck in the machine. So to avoid these issues we are proposing the prepaid card system using prepaid cards.

- Coin box for vending machine was full.

Firstly, the problem occurs with the payment method is having a problem with the coin Box. When the coin box is full, no more coin can be accepted. When the tank is full, no more Coins can be accepted. This will cause no more purchase can be made thus vending machine Will Stop. Certain vending machines utilize a winding sort of instrument to discrete and to hold the Product When the machine distributes, the winding turns, in this way pushing the product forward and tumbling down To be distributed. On the off chance that the products and the winding aren't right adjusted, the winding may turn yet no completely discharge the product. The product will stick and remains in the middle of the vending machine. The Vending Machine automatically will stop operating and working this condition occurs.

- The notes and coins cannot be read

Secondly, the problem related to the payment method is notes and coins cannot be read. For Vending machine using notes as method of paying bills, the notes must be in good condition. The Term of good condition refer to the good shape of the notes, not folded, and original one. When Using notes with bad condition such as folded and dirty, the vending machine cannot read. The note and then rejected the payment. Also some machines may not accept quarters and other coins.

### IV. METHODOLOGY

In the previous paying bills method for vending machine, the technology was developed to make a payment by using coins or notes. Here we are making bill payment by rechargeable prepaid card and also making the link between main systems to the subsystem to determine and to detect the data like milk available in subsystems and also the data like subsystem is working properly or not.

In the proposed system each and every single user is provided with a RFID tag, by using this tags each one can access or buy milk at the milk centers. Before using this card, we have to recharge this cards because it is prepaid cards. To vend the milk the card must be swipe on the RFID reader module, which is interfaced to the PIC16F877A micro controller with serial interfacing. The micro controller reads the information from the reader or module and asks how many liters does it required, which will be shown on the LCD of the screen. Then user required to enter the required number of liters through keypad which act as an input to the micro controller. After reading the value the microcontroller will check for the required balance in the smart card, if it is sufficiently available then the milk will be pumped. If there is no cash in the card the buzzer will ON or caution. By using the level sensor whenever the milk level is going to finished it will send Short Message Service (SMS) to the Manager of the vending machine.

#### A. RFID reader

A RFID reader means radio frequency identification is a device is used to collect information from any RFID tags which will be swipe on RFID reader module, then the authentication will be done. Radio waves are used to exchange information from RFID tag to the RFID reader module.

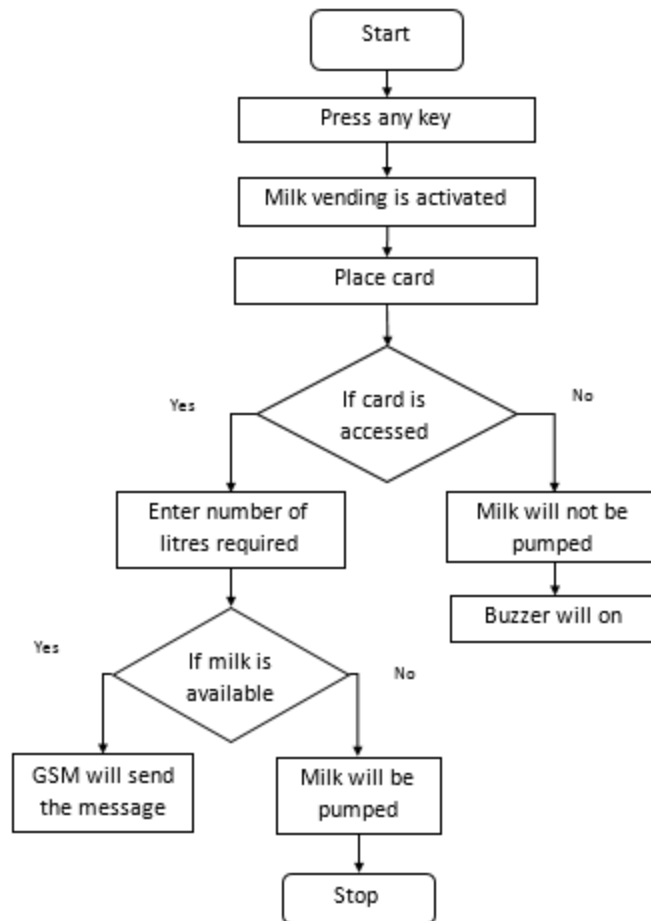


### B. RFID Tag

A RFID tag is a small object, such as a glue sticker, that can be attached to or integrated into a Product. The tag is generally made of an Integrated Circuit (IC). The IC will include Memory and some form of processing capability. The memory may be only read or read/write, the type Selected IC will depend on the application. Tags can be classified into two types One is active tags which has internal power supply and second one is passive tags which do not Have internal power supply. We will use passive tags as per requirement we can use passive tags also in future.

### C. liquid Crystal Display (LCD)

A liquid crystal display (LCD) is an electro-optical amplitude modulator acknowledged as a flat display device made up of any number of hues or monochrome pixels exhibited before light source. In recent years the LCD is finding widespread use replacing Light- Emitting Diodes (LED) such as seven-segment displays or multi segment LEDs. This is expected to be appeared.



Flow diagram

## V.EXPECTED RESULT

From this proposed system we will get more advantages like, from the design we are expecting the following outcomes:

- 1) Here we are using the lactometer which shows or displays the different parameters it will detects



the quality of the milk.

- 2) This system will be convenient and flexible to the customers because here we are providing the toll free number in case of any failure.
- 3) It will be reliable to the customers that we giving one chance to the customer even if the balance is not available their account.
- 4) Reduced human interaction and waiting time reducing.
- 5) This proposed system must be the part of the smart city.

## **VI. CONCLUSION**

The proposed system is design to provide fast response serving, to solve real time problem. The improvement of the efficiency and design cost was considered. Using this system design, the efficiency of Vending machine can be easily enhanced for many applications. Complexity reductions that involve with the time and space increase the efficiency of the overall system used in vending machine. Also we are going registered database of the customer by reducing human interaction.

The future work of this vending machine is to improving it by adding toll free number in case of any failure. Also, we suggest that the machine design to be able to accept ATM cards instead of paper money. Also, improving efficiency and complexity reduction of the machine will be possible in order to convert the Vending machine to an intelligent approach.

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