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# MEDICINE VENDING MACHINE USING IMAGE PROCESSING

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**Abstract**: When compared to people living in rural areas and small towns, medical facilities in major cities and towns are far more easily accessible. The process of getting medications from medical stores takes time, and these outlets might not always be open. Consequently, this might be seen as a manual process. One method that helps cut down on time wasted is an automatic pill dispenser. People often find it difficult to go to hospitals because of inadequate transportation options. Seniors and others with physical limitations have a tough time travelling and get tired from waiting in line for a doctor's appointment.

**Keywords-** Medicines, RFID Reader, Raspberry pi, pi camera.

## I.INTRODUCTION

A machine that can dispense medications is called a 24/7 general medicine vending machine. The device may automatically retrieve medications for the most common and basic symptoms, but the medications are only meant to be used as needed; in an emergency, a patient must seek out qualified medical help. Rural residents are unable to receive the free medications that the government provides for them. With the use of patient kiosks, consumers will be able to acquire medications in public locations like pharmacies, malls, bus and train stations, along motorways, and other places where there aren't many medical supply stores. Knowing the needs in the area can be made easier with regular refilling, which also guarantees that medications are accessible around-the-clock. The goal of this technology is to benefit India's needy and illiterate populations.Lack of immediate assistance at places like malls and train stations, etc. The medicine distribution system releases the stored OTC drugs after receiving payment for the required strip of medication. The price of the medication is predetermined and the amount entered by the user is processed using an RFID tag because the machine is built to be nearly autonomous. The autonomy of the device has the advantage of requiring human intervention only when medication or money needs to be changed or renewed.

## II.METHODOLOGY

This project is to develop a structure to grant prescription all day and all night to the general population. The machine can provide primarily OTC medications, first aid supplies, and so forth. It will therefore be of great value to the larger public. The customer must first enrol in a particular recognised programme with prescribed medications. The client will then be given an RFID tag and a secret phrase. To use the ATM, authorised person must first swipe their card and input their Personal Identification Number (PIN).The client will provide the prescription in front of the camera. The machine will scan for the medication using pi camera.The camera scans the specifics of the prescription. The medication will be administered appropriately. At last the solution is gathered.

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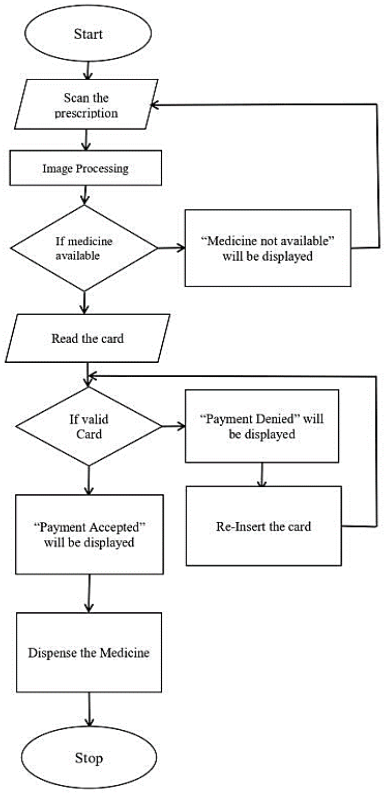
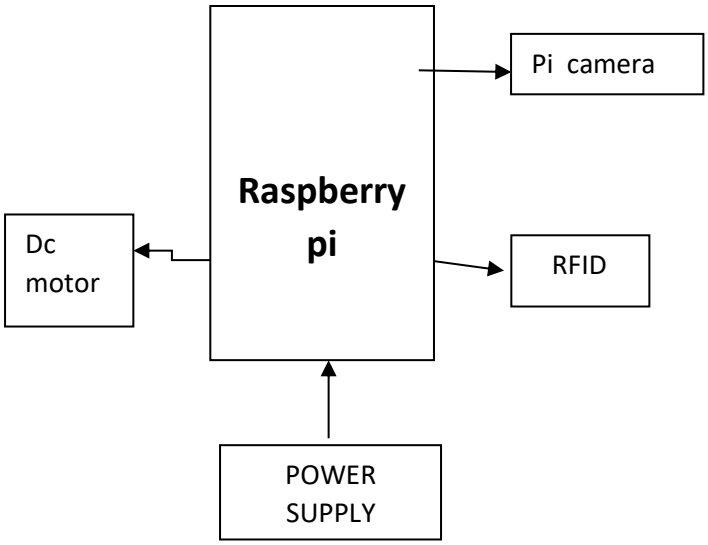



## III. LITERATURE SURVEY

This chapter describes current difficulties that the people are facing. Under Medicines Legislation, General Sale List (GSL) medicines (those that may be brought from common retail outlets like supermarkets) may be traded across using a vending machine. Living will become a bit easier if people could buy medicines from vending machine that dispenses medicines. End users will be able to buy OTC Medicine at all times. Sometimes, minor sickness in the mi9ddle of night when the medical stores are already closed will make people nervous. As we know that OTC drugs can be traded directly to a customer without any prescription. Even during night times people an access to medicines using this machine

## III.BLOCK DIAGRAM



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## IV.APPLICATIONS

Its main application area will be healthcare field. It will help in increasing the network of good organization worldwide and in providing the medical facility at the doorstep to the required one. This idea is very much useful in day to day life for common people. It can be implemented on National Highways, Railway stations, Colleges, and Hostels. This system can be used by the defence organization such as military, air force etc., Greatest application used is no big queues, no time consuming distance, and no issue of unavailability at late night.

## V.CONCLUSION

It increases efficiency by using less labour. The machine dispenses medications in accordance with the user's needs, resulting in the intended outcome. How much more convenient it would be for consumers to purchase medications from vending machines as opposed to standing in line. We also studied the operation of numerous devices. This includes things like motor drivers and RFID functionality. All of this has significantly increased our knowledge of how vending machines function and perform.

## VI.FUTURE SCOPE

Our project is pollution-free and eco-friendly, and as it is a new creation, numerous procedures are being used to make it useful in a variety of fields. To enhance the functioning of the automated medicine dispenser, the following new functions could be added: System implementation with NFC card: Currently, we are using the system camera, but we could also utilise an NFC card. delivery of first aid supplies, OTC medications, and prescription drugs. Currently, only prescription medications can be given, but in the future, users will also be able to do so for first aid and medications that treat aches, pains, and itches without a prescription.

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