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Medicine Reminder and Monitoring System for Secure Health Using IoT

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A B S T R A C T

In current society,busy life has made people forget many things in day to day life.The elderly people and the people victims of chronicle diseases who need to take the medicines timely without missing are suffering from dementia,which is forgetting things in their daily routine. Considering this situation study has been done in this. Project reviewing the technologies of home health care which are currently used for improving this situation by reminding the scheduled of medicine, remote monitoring and update new medicine data of patients,which can be done by prescriber through web.

***Keywords*:** Home health care Dementia Remote Monitoring Medicine Reminder RFID Authentication

1. Introduction

Although there is currently no cure for CoViD-19, nurses and doctors do provide patients various medications to lessen the discomfort, boost immunity, and lessen symptoms. However, doing so puts our healthcare workers in danger. As a result, I created a machine that can collect all of the medication doses for a full week, store them, and then administer them to the patient at the time determined by the doctor once, at the machine's startup.

Nurses won't have to risk their lives to go and administer medication to the infected patient as a result, ensuring distance from patients.

2. Literature Review

TITLE: Smart Pill Reminder

AUTHOR: A. Jagadeesh waran; H.Shree Kumar; Saiyad Saleem

People with dementia require help devices to handle their medications due to their forgetfulness. In this research, we suggest a smart medicine reminder method that enables persons with memory impairments to take their medications without interruption. Our innovation, unlike other pill dispensers, not only reminds patients when to take their medicine, but also allows them to set their medicine intake timing based on their doctor's recommendation.

TITLE: Smart Medicine Reminder and Vending Machine

AUTHOR: SuprriyaLohar, ShruthikaDhapal, SoniSalgar.

In this project a Smart Medicine Reminder and Vending Machine has been developed. Many old people have the tendency of missing the medicines or taking the medicines at wrong time. Often, they require someone to give them the medicines. Hence it is required to design a Medication Reminder Device that can help old people and many other patients to take medication on schedule.

TITLE:Automated Medicine Reminder

AUTHOR: Ram Chokda, JanhaviDhore, HimangaChoud

The Automated Medicine Reminder is a system design for controlled dispensing and storing of medications more accurately by utilizing a dedicated programmable system. The system dispenses doses of medication in controlled manner at respective time for a particular patient. This system helps to prevent the chances of human error of skipping their doses for any given unattainable conditions. At hospitals it's a tedious job for the caretakers to cater the medication timetable of every patient throughout the day so this system helps the patient to be self-reliant for their medication services irrespective of their literacy skills because the system once monitored with the prescribed schedule by nurse will not need any further assistance.

3. Idea and Methodology:

The development of the algorithm and code implementation has be divided into various blocks based on the functionalities. The whole code is deveopled using Embedded c with the use of advanced libraries. All these functionalities are then utilized to improve a model that can be implemented in various applications like medication reminder and controlling the patient.

We designed our system to measuring the rate of temperature and the heart rate of the patients by using various sensors.When the medication is needed to the patient our system will remind the patient.

Flow chart

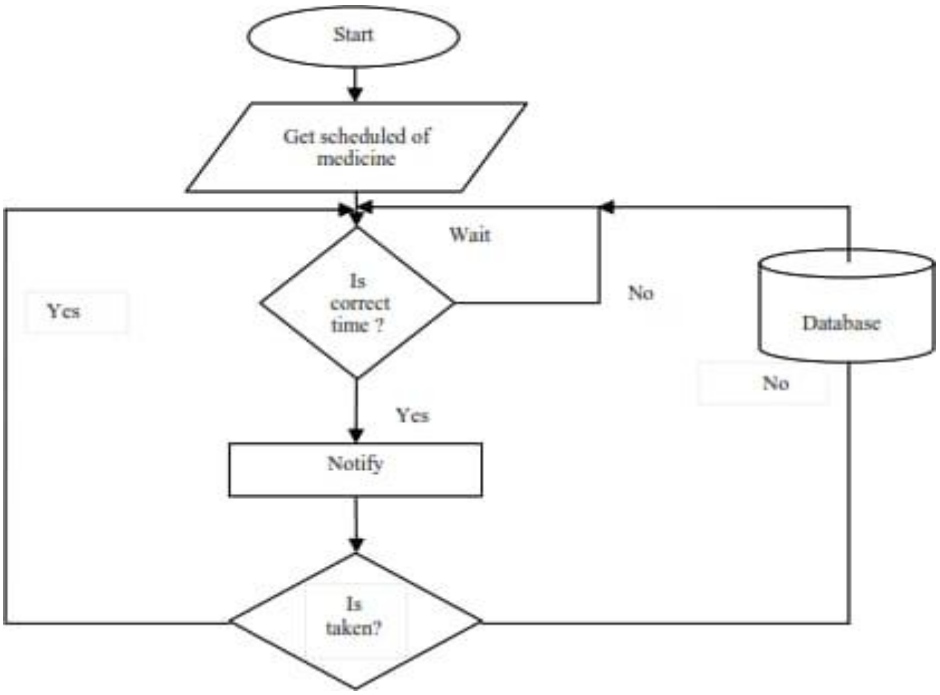
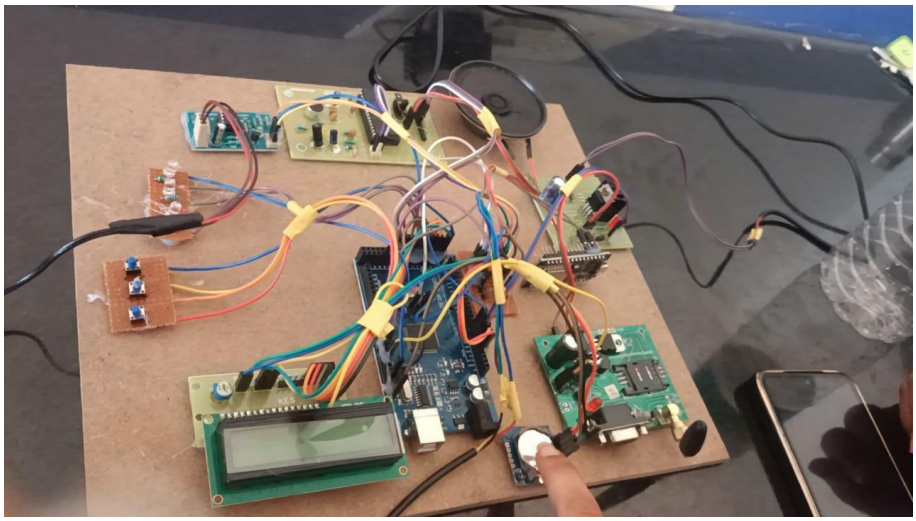


Fig 1: Flow chart of Dusky Detect

The conceptual working of medicine reminder and monitoring system in flow chart describes the scheduling and the procedure of taking medicine, if schedule is followed by patient or not the data will be stored in the cloud. The stored data will be used to analyze record of patient and further prescription will be give according to it.

4.Outputs and Results:



and

The wearable sensor are connected to the Arduino as the input,atlast we get the results are like heartbeat is increased,temperature is increased and remind the medication to the patient.

Fig:Temperature measuring

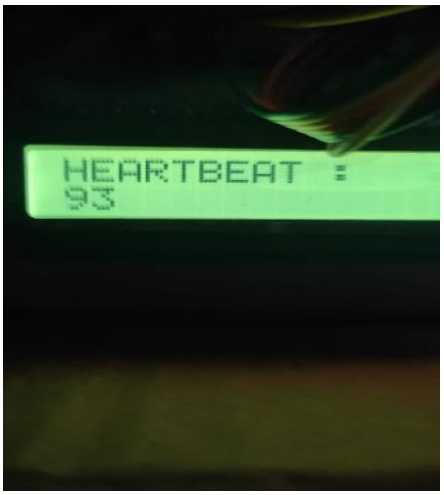


Fig:Heartbeat measuring

5. Conclusion

For home health care various technology have evolved as review considered, in this paper medicine, its scheduling have well focused which is beneficial to improve efficiency of prescribed drug and reduce economic factor. To improve the existing home health care technique number of monitoring technology has observed which leads to home health monitoring system. The monitoring system can be implemented with sensing element and wireless module which should need to secure so that message containing the health related information should not be corrupt. IOT (Internet of Things) play a vital role in communicating the two devices, the use of messaging standard and communication protocol we can securely transfer the important messages regarding to health. open source IOT cloud will be effective for storing sensors data,the benefit of digitally storing is the retrieving of data is easy and faster manner in case of emergency for secure health. For the user personal identity and Encryption/Decryption purposes the RFID will best

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