

PERSONAL ASSISTANCE FOR SENIORS WHO ARE SELF-RELIANT

Abstract:

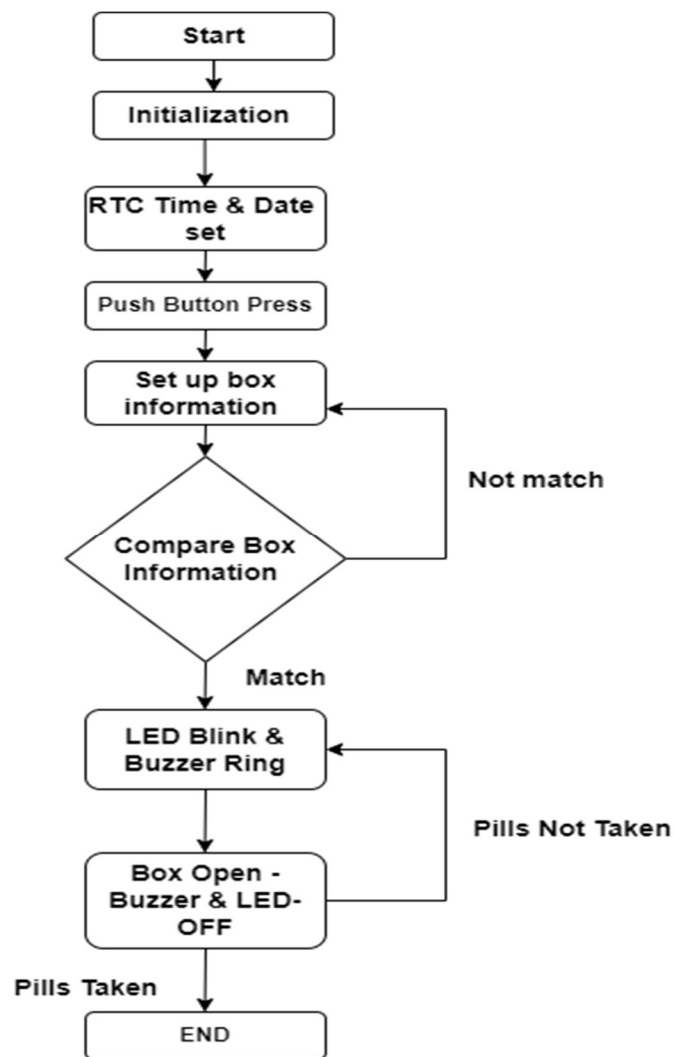
Our project's main aim is to make a Smart medicine box for those users who regularly take medicines and the prescription of their medicine is very long as it is hard to remember to patients and for their care giver. Also, Old age patients suffer from problems of forget to take pills on proper time which causes certain health issues for patients having Permanent diseases like diabetes, blood pressure, breathing problem, heart problems, cancer diseases etc. We saw these problems in hospitals & people around us who have such kind of diseases and thus based on these two problems we made smart medicine box which solve these problems by Setting up timetable of prescribed medicines through push buttons as given in prescription. Present time will be saved in RTC module and notification time will be saved in EEPROM. Therefore, at the time of taking medicine system generate Notification sound and display the Bright light in certain pill boxes. So, patient can know the specific number of boxes from which he has to take out medicines. All pill boxes are pre-loaded in the system which patient needs to take at given time. And our system has quality that it can sense if the patient had taken out pills from the box or not. Another advantage of our system includes of Sensing capability if the patient tries to postpone the time of taking medicine by suddenly opening and closing the medicine boxes to stop the sound. Compare to other devices available in market are capable to generate sound at one time and afterwards it stops. Thus, final result of our system provides fast curing of patient health by using our advantageous system.

KEYWORDS: Smart medicine box, old age patients, Permanent diseases, Setting up timetable, Bright light, Notification sound, Sensing capability.

Introduction:

In day-to-day life most of the people need to take medicines which was not there in past couple of years and the reason behind this is diseases are increasing in large amount. So sooner or later many people encounter these diseases. Some diseases are temporary diseases while many are permanent life-threatening diseases. Life threatening diseases gets mixes with the human body in such a way that they can't leave the body ever and they increase in rapid time. Life span of humans became less because of such diseases and to overcome or to live a better life we need to take medicines regularly and in large amount. We need to be in advice of doctor who tells us to take desired pills in desired way so that patients face problems like forgetting pills to take at right time and when Doctor changes the prescription of medicine patients have to remember the new schedule of medicine. This problem of forgetting to take pills at right time, taking wrong medicines and accidentally taking of expired medicine causes health issues of patient and this leads to suffer from unhealthy life. Our project is to made Arduino-Uno based Smart medicine box which uses Real time clock. The new awaited feature in our project is our system is sensible that patient has taken medicine or not and thus the patient can't postpone the time on which he needs to take pills. It is compulsory for the patient to take pills from the box at the right time otherwise our systems continue to make large sound until the medicine is taken out from the box. This notification feature adds life years to the patient and thus this thing is not available in any device which is the necessity for present days.

Methodology:



As shown in flowchart when time & date are set through push buttons, device will continuously compare the real time & set time. If the time is matched, LED will blink & buzzer will ring. It then senses the box is opened by the user or not. If box is opened, LED & buzzer stops and if it is not opened, LED will continuously blinks & buzzer will continuously ring.