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Personal smart assistant system for old age people

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ABSTRACT
The old age people needs Guardians' attention 24 hours a day and 7 days a week, which is practically impossible due to other priorities like house hold activities, official works and personal works.Old age people vridhashram options available which involves lot of passion, does not feed timely medicine. We live in a world where technologies are used everywhere . The new generations of peoples were raised with technology. So, there is a need for safe and secure place to take good care of the aged people need with minimum human intervention, which can be accomplished with the help of a "Personal Smart assistant system for old age people". A "Personal Smart assistant system for old age people" provides Guardian a smart automatic Smart monitoring system to help these guardian monitor and comfort the old aged people.

Keywords: *Rtc module, senors, blynk app, monitoring system*

I. INTRODUCTION
When people become older, the various organs and tissues will undergo degenerative changes, physiological functions will decline gradually, as while as the incidence of various diseases will increase significantly. There are many things these guardians or care takers will buy to help them care for their health problems to be resolved (medicines alerts, fever monitoring, wet detection, and response to guardians, etc.). The Smart monitoring systems allows them to monitoring their parents health, timely medicines feeding alerts and responding to their guardians through switch, observing the fever monitoring gives the information to their guardians, bed wet detection and giving the buzzer sound alerts and notification sends to guardians phone. So, there is a need for safe and secure place to take good care of the aged peoples need with minimum human intervention, which can be accomplished with the help of a "Personal Smart assistant system for old age people". A "Personal Smart assistant system for old age people" provides Guardian a smart automatic Smart monitoring system to help these guardian monitor and comfort the old aged peoples.

II. RELATED WORK

[1]Siek, et al. found that there are no major differences in performance between older (75-85 years) and younger (25-30 years) users when physically interacting with a PDA and completing conventional (e.g., pressing buttons) and non-conventional (e.g., scanning bar codes) tasks .
[2]Darroch, et al. found little difference in reading performance by older adults and their younger counterparts with font size above 6 point; however, older adult subjects preferred the larger font sizes. Another study conducted by
[3]Goodman et al. showed that multimodal presentations of information are effective for older adult users of handheld devices when used as a pedestrian navigation aid. The study pointed out that portable technology can prove useful for older adults in maintaining their mobility and independence.
[4]Card et al. showed that virtual pointing with a computer input device such as a mouse can also be modelled accurately by Fitts' law. On a graphical user interface, directly changing D and W involves simply changing the size and position of objects on the screen. In rehabilitation robotics, however, additional constraints on the interface may conflict with requirements for optimising the layout in a Fitts' law sense. For example, robot user

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interfaces often provide a means of interacting with physical objects, and having the interface reflect the spatial relationship of physical objects in the world can make the interaction more intuitive

III. PROPOSED WORK

3.1 Working of temperature sensor

In general temperature sensor is a device which is designed to measure the hotness or coldness of an object.LM35 is a precision IC temperature sensor with output is proportional to the temperature (in °C). than with a thermistor the temperature can be measured more accurately with LM35 . It also have low self heating and does not cause more than 0.1 °C temperature rise in still air. The operating temperature range starts from -55°C upto 150°C.The LM35's low output impedance, linear output, and precise inherent calibration make interfacing to readout or control circuitry especially easy. It has some applications on power supplies, battery management, appliances,etc.

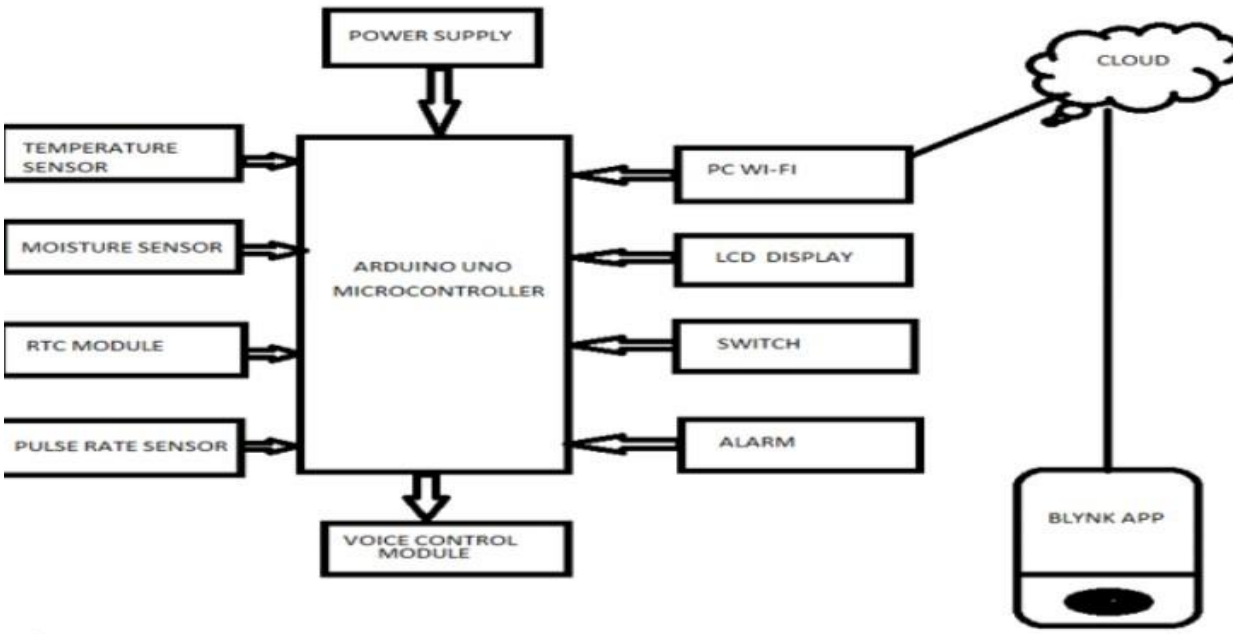

Fig 1. Block diagram

3.2 Uses for the Arduino Sound Detector

this device measures whether sound has exceeded a threshold or not, you're basically left with determining what it is you want to do. What I mean by this is that you can do something when it is quiet and/or you can do something when it is loud.

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Fig 2. Overview of operation

3.3 THE HARDWARE SETUP

Fig 3. Hardware setup

Arduino is an open-source electronics platform and it is easy to used with both software and hardware . Arduino boards are able to read inputs such as– light on a sensor, a finger on a button, or a Twitter message, turn it into an output - activating a motor, turning on an LED, publishing something online. We can tell our board what to do by sending a set of instructions to the microcontroller on the board.

IV. HARDWARE AND SOFTWARE REQUIREMENTS

Table:4.1

HARDWARE REQUIREMENT	SOFTWARE REQUIREMENT
1. Arduino Microcontroller 2. Temperature sensor 3. Moisture sensor 4. RTC module 5. Voice module 6. Buzzer 7. Switch 8 .Pulse rate sensor	1. Arduino IDE 2. Blynk app 3. Embedded c

VI. CONCLUSION

A "Personal Smart assistant system for old age people" provides Guardian a smart automatic Smart monitoring system to help these guardian monitor and comfort the old aged people. The Smart monitoring systems allows them to monitoring their parents health, timely medicines feeding alerts and responding to their guardians through switch, observing the fever monitoring gives the information to their guardians, bed wet detection and giving the buzzer sound alerts and notification sends to guardians phone.

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