COVID PREVENTER SUITE

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ABSTRACT

The Medical council Covid 19 report reveals that in recent days the spreading of covid increases drastically. To prevent the spreading of disease on public service sector employees the newly developed suite will measure the vital parameters with self-hand wash reminder, social distancing indicator and checks the temperature of the neighbor. When someone affected without knowing themself could become a bridge to spread the disease. To avoid this critical situation, the suit will help to monitor the person wearing the suit and other persons before he/she gets into contact with others. Advanced fabrics have been developed using modern technology. The Fabric Material is covered with a layer of sensors, which have contact with the epidermic skin layer of the person wearing the suit to gather vital information. The Suit is well stitched to maintain its Quality. The battery system is Separated into parallel connection for easy charging and to reduce weight.

I. INTRODUCTION

TheWearable health monitoring technologies, including smartness and fitness trackers. There are many sensors for measuring the vitals of the human body which are essential for a doctor or a medic to know the health problems. We all know that doctor first checks Heart Rate to know Heart Rate Variability (HRV) and body temperature. It consists of four different circuits which are interconnected and fully focused on preventing the spreading of the disease this device is mainly focused on public service sector people. A suit that measures the health parameters, with hand wash reminder and social distancing indicator. For example, if a watchman in a mall is checking a person with some equipment's and without knowingly, he has been affected where he could become a bridge to spread the disease. To avoid such things this suit will help him to check himself and another person before he gets into contact with them. The person who works as security in social gathering places is mostly benefited.

II. METHODOLOGY

The methodology of the project is being followed by 4 different circuits where it starts with monitoring the vital parameters. on using various sensors, the data are collected and get analyzed in a microcontroller and then the vitals are displayed on the OLED. Then using the non-contact temperature sensor, the temperature of the person standing in front of the suited person is analyzed the temperature and display the temperature indicating the person is to be noticed or checked and this also flows with hand wash reminder and Social distancing indicator.

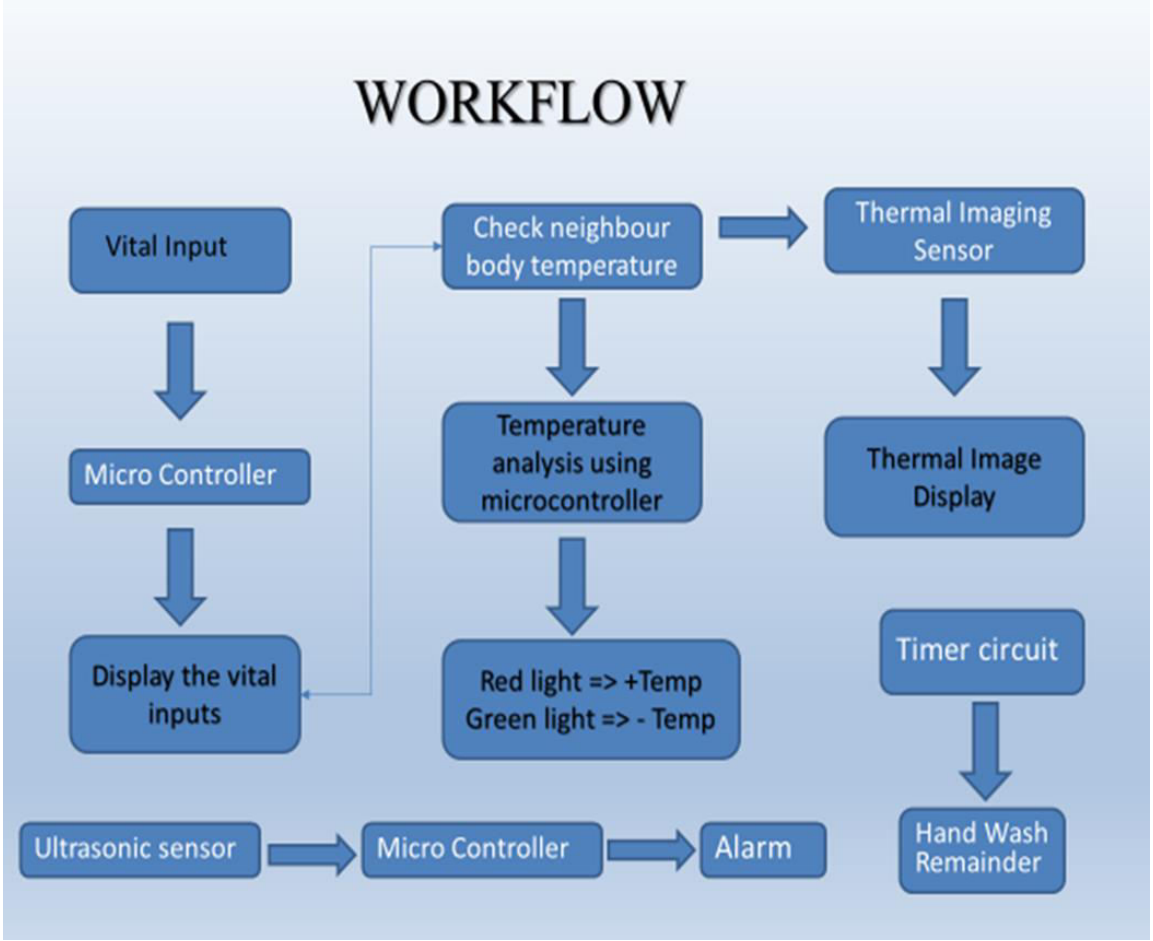
The vital data are collected from the input devices and analysed by the microcontroller the flow are as follows.

- Input from sensors (bio metric, temp sensor, pulse sensors) where the data collected and given to the micro controller.
- where it decides and display the vital parameters of the person and checks the neiobours temperature.
- if the person is not affected the led straps blink in green in colour where if the person is affected it blinks red.
- Through the ultrasonic sensor the distance is measured and intimate to maintain the social distance.
- Hand Wash Reminder is made using an Arduino Nano, a WS2812b LED and a home-made Vibration Sensor.

- Whenever a person wants to wash his/her hands they have to shake their hand with force so that vibration sensor detects the vibrations and triggers the reset of the Arduino board. As Arduino is reset the program comes to the initial values and starts.

- These circuits are interconnect and design as a suit material and developed as low-cost vital monitoring wearable device so called as COVID Preventer suit.

- This project is developed to break the chain of spreading disease and focused on feasibility where every person can afford to own such Product.



III. MODELING AND ANALYSIS

Model and Material which are used is presented in this section. Table and model should be in prescribed format.

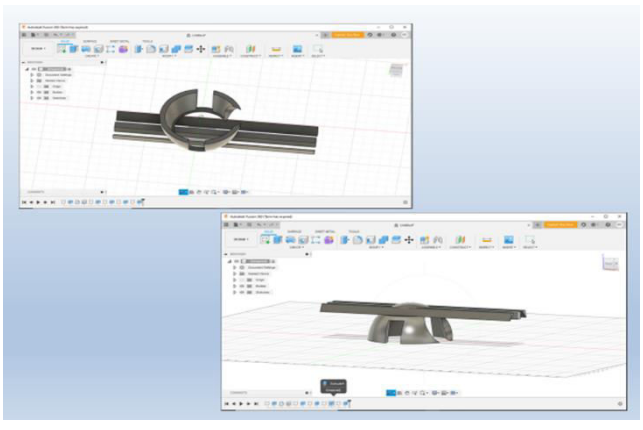


Figure1: view of building.

IV. RESULTS AND DISCUSSION

The implementation of this visualized idea has been implemented on our college lab court to have a testing phase where this project is tested in our college premises.

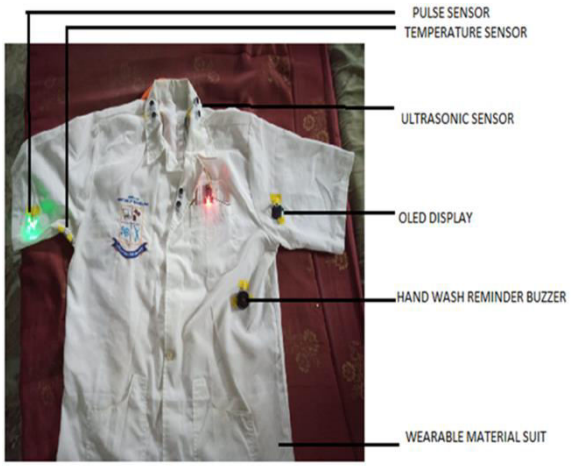


Figure2: Final pic

V. CONCLUSION

Here through this project presentation, we conclude that Health plays a major role in humans' life so monitoring your health on daily basic activities is more important and this cumulative project paper is specifically concentrated on the person who faces more person in their day-to-day lifestyle person who sees or get an indirect contact with strangers are the most common person who works as securities on most of the public places. Where they get in direct contact with the unknown person. During this pandemic crisis, these persons should get noticed more and concentrated on their Health Parameters. This project paper is developed to monitor the health condition of this person and with the problem, statement to monitor these individuals.

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