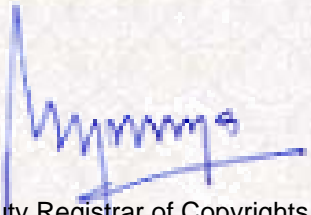




Dated : 19/05/2022

1. Registration Number : **L-115572/2022**
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4. Class and description of the work : LITERARY/ DRAMATIC WORK POSTER ON AUTOMATIC HEALTHCARE DEVICE IN WHICH THE DEVICE WILL DETECT TEMPERATURE, OXYGEN LEVEL AND SANITIZATION OF HAND DONE.
5. Title of the work : "AUTOMATIC HEALTHCARE DEVICE"
6. Language of the work : ENGLISH
7. Name, address and nationality of the author and if the author is deceased, date of his decease : RAHUL ARUN PATIL , NUTAN MAHARASHTRA INSTITUTE OF ENGINEERING & TECHNOLOGY, SAMARTH VIDYA SANHUL,VISHNUPURI,TALEGAON DABHADE-410507 INDIAN
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- Date of Application : 09/03/2022
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NUTAN MAHARASHTRA INSTITUTE OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF MECHANICAL & E&TCENGINEERING

“Automatic Healthcare Device”

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Name of the Guide: Prof. Rahul Patil, Prof. Rohit Jadhao, Prof. Manojkumar Kate

Session: 2021-22

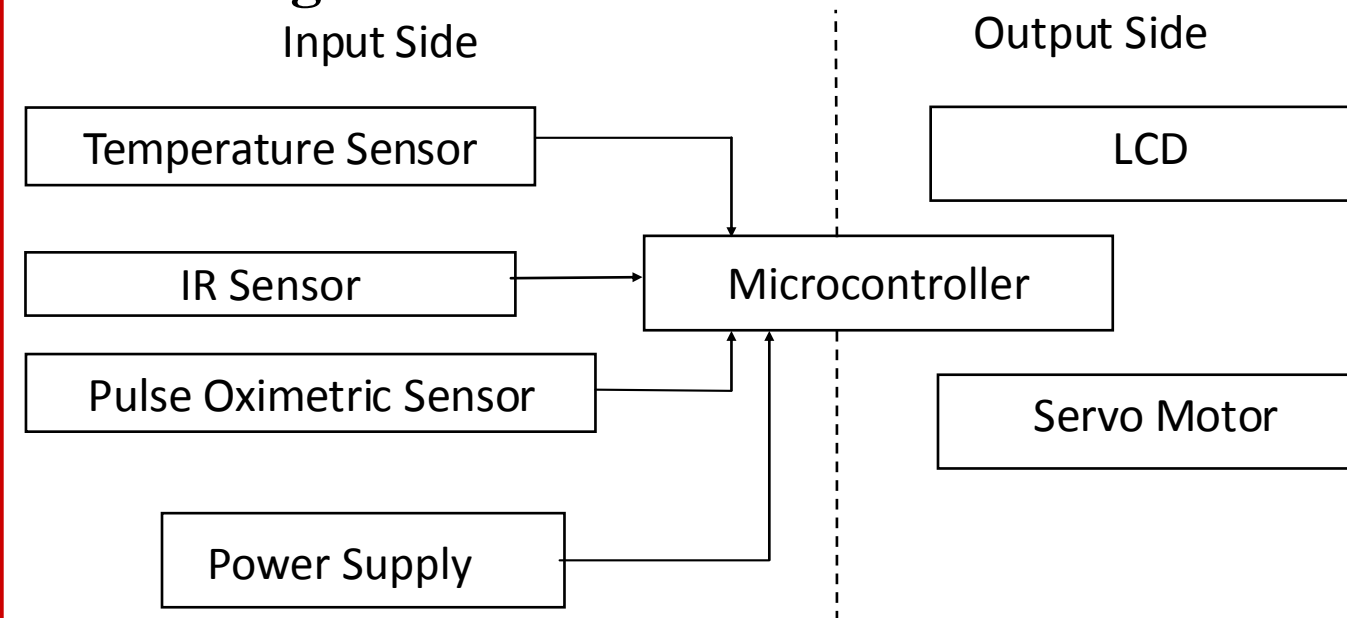


◆ **Abstract:** This project aims to design the Automatic Sanitizer Dispenser for medical healthcare. In this covid-19 pandemic healthcare is top priority for people. To maintain this healthcare hands should be properly sanitized. To make this process automatic and efficient, this idea came into existence. This project is much helpful in the pandemic situation where user can easily identify the symptoms of the COVID-19 from there safety of home. This project is highly cost efficient so anyone can afford it.

Introduction:

- A device that dispenses a controlled amount of sanitizer
- This device is need in this pandemic.
- Easiest solution to stop the spread of viral diseases
- Essential product to kill the effect of virus
- This device uses:
 - ultrasonic sensor
 - Arduino uno
 - temperature and pulse detector

Block Diagram:



Conclusion:

- The product does all the three applications at the same time.
- Reduces time, cost of 3 devices and also manpower required for these three applications.

Future scope:

- Creates opportunities for manufacturers to enter the touch free hand sanitizer dispenser temperature and pulse detector market
- Create health awareness.
- In the coming years, South Asia and East Asia are likely to emerge as mossy lucrative market for multi-functional touch free sanitizer.

Aim:

To make an automatic hand sanitizer dispenser which also consists of temperature, pulse and oxygen detector.

Objectives:

- To stop the spread of infection using automation
- To prepare an automatic device which will be capable of detecting temperature, Pulse rate and oxygen percentage of the user

one more applications
a single product in less time.

Working Principal:

- The working principle of the automatic sanitizer dispenser is whenever the sensor observes a low distance reading due to an obstruction in its line-of-sight then it will actuate the servo to press the sanitizer tap.
- To actuate and dispense the sanitizer the Arduino board receives a low distance reading and instructs the servo motor.
- This device also consists of Temperature, Pulse and oxygen detector which will be efficiently applicable for daily use.

Disadvantages: Might be less accurate based on environmental conditions.

Automatic Covi-Care Device

- Temperature Detector
- Automatic Sanitizer Dispenser
- Pulse and Oxygen Detector

Advantages:

Reduced man Power to check temperature and pulse, Space reduction, Time saving, Safety from viruses and other disease, Cost reduction.

References:

- ✓ https://www.researchgate.net/publication/344076028_Novel_design_of_automatc_sanitizer_dispenser_machine_based_on_ultrasonic_sensor

Simulation Video:

- ✓ https://drive.google.com/file/d/1Ot7Fs7YoM8b4PvxJWAI_eBYsGgUCQJoQ/view?usp=drivesdk

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