

Low cost Automated Hand Sanitizer provider to prevent novel Corona Virus

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Abstract:

COVID-19 is an epidemic that has been multiplying rapidly across the globe. To order to regulate its growth, several nations have implemented home-stay or lockout policies. Prolonged domestic residency, though, can cause worse effects such as economic instability, homelessness, food shortages and individuals' mental health issues. This article presents an intelligent consumer electronics solution for secure & gradual launch after residence restrictions have been lifted. Completely automatic hand sanitizer supplier to prevent quickly spreading novel corona virus. It is implemented to restrict the development of new positive cases through auto touch tracking and by promoting critical social distancing.

Keywords: COVID-19, Automated Hand sanitizer, Corona virus.

I. INTRODUCTION

COVID-19 is an epidemic caused by a recently found coronavirus (Corona Virus Disease 2019)[1]. It is exponentially continuing to spread throughout populations. A single decent case of COVID-19 could spread in just a couple of days across a country. It propagates by droplets formed while coughing, sneezing, coughing or indeed breathing air by an infected individual.

Virus inhibition technology was successfully investigated in the prevention of transmissible viral infections in recent years. The rest of this paper is made as follows. Section II states Related works of this project. Section III provides the proposed methodology and its working. Section IV presents Results and discussions. Finally, section V concludes with the conclusion respectively.

II. LITERATURE SURVEY

The likelihood of infection is dependent on the number of individuals infected & to the length of the disease. Controlling the spread of this epidemic by sterilizing COVID-19 carriers is helpful. Likely hosts of the virus are hard to classify[1]. This is why many countries take cover, sit at home & lock-down as remedies. Long-term residency may have worse effects such as economic recession, homelessness, food shortages and people's mental health problems[2]. Therefore, it is important to seek alternative

solutions. One remedy may be a gradual elimination of the lockout, i.e. an incremental reduction of the constraints. Originally, the restriction can be eliminated from remote areas with no successful COVID-19 cases as long as the last 20 days slowly converge with the surrounding areas. This section provides an Automated Hand Sanitizer supplier that prohibits hands from being used in shared spaces and offers a solution to the reopening process. The system is combined and uses PIR to sense the presence of the human hand and to prevent the transmission of viruses from an entity to a person.

Specific technical methods have been developed to achieve touch tracing. For example, Israel uses the personal records of patients with COVID-19[3]. In order to track quarantined people Taiwan tracks travel history and cell phone location[4]. The smartphone application "TraceTogether" [5] has been created by Singapore to track contacts. If two smart phones have identical smartphone applications, they connect via Bluetooth & share the coded IDs. If an individual is found to have a positive at COVID-19, the person's Bluetooth data is used to identify contacts. This has become a prototype for the development of mobile contact-tracking applications for the COVID-19 positive persons in various countries. CovidWatch[6] is an application close to one where the user's privacy is protected.

A Google Apple corporation created a wireless protocol to monitor the location & status of a device. The status of this application tells consumers about the chance to get COVID-19. The framework AarogyaSetumobile framework has begun for related purposes. [7]. [5].

III. PROPOSED SYSTEM

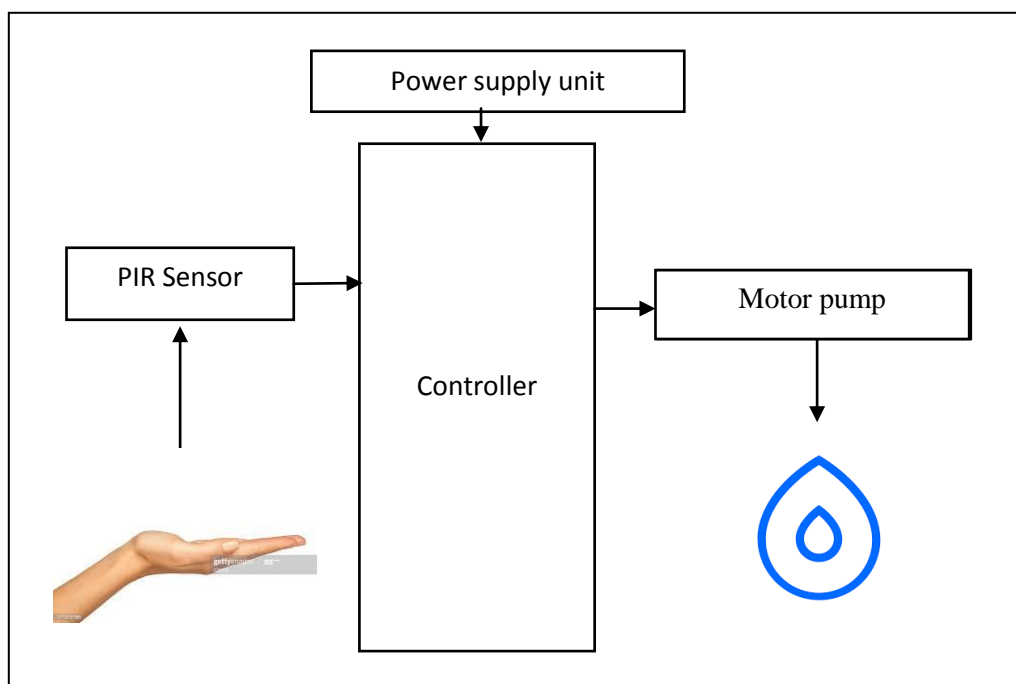


Fig 1 Block Diagram of the proposed system

Above fig 1 shows the block diagram of the proposed system which constitutes of PIR sensor, Solenoid Valve, Microcontroller and Power Supply Unit. Here, PIR sensor is used

to observe any Human hands is kept before the prototype so that it can spray the sanitizer in the user hands. So if none of the hands is observed then the solenoid valve will be in close state. By this prototype the contact between the user and the object is minimized which also reduces the main means of communication through physical contact.

IV. RESULTS & DISCUSSION

The Fig 2 shows the hardware implementation of the proposed system in which you can see the PIR sensor in top of the bottle which is used to detect the human presence and a motor pump is used to dispense the sanitizer from the bottle to the user.



Fig 2 Hardware Implementation of proposed system

V. CONCLUSION

Safety-aware mobility for purposes such as financial stability & food supply during the pandemic outbreak is required. A possible answer for shutdown safety-safe opening is the Automated Hand Sanitiser provider. The approach involves stopping dissemination and ensuring protection for all households. In fact, in many common places this proposed device can be implemented to prevent fast virus dissemination. We expect to have distinct benefits over other designs from the automatic hand sanitizer manufacturer. It can firstly be a standalone app & can operate with admins without a smart mobile device.

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