

ABSTRACT

DESIGN AND BUILD AUTOMATIC STERILIZER BOX SYSTEM TO PREVENT THE SPREAD OF COVID-19 USING NODEMCU BASED ON IOT

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Covid-19 is a virus that everyone in the world is facing. This virus can infect humans through the breath or mouth of someone who has been infected with the virus. With this kind of thing, people often carry out activities such as buying and selling online, these activities also occur with many people, such as an item that is purchased online by a buyer before being sent first by the seller, then sent by a delivery service that also goes through many people. , so that the Covid-19 virus can be infected when the buyer receives the ordered goods. The purpose of this research is to create a Sterilizer Box system that functions to sterilize these items in order to avoid the attached viruses. The Microcontroller-based Sterilizer Box system can be used to minimize the spread of Covid-19. The way the Sterilizer Box works is that when the courier comes close to the Sterilizer Box, the door will open automatically, when it is open, the courier can put the goods into the Sterilizer Box to carry out sterilization, after the goods are put into the Sterilizer Box, the sensor will read the presence of the goods and the weight of the goods. with the blynk application and also like the mist maker to be able to sterilize with a misting system and sterilization can be determined in the blynk application, then when the recipient approaches to pick up the items in the Sterilizer Box, the recipient will open automatically, and the recipient can receive the item clean. The results in this study found that the ultrasonic sensor can read a maximum object of 80cm, for the load cell sensor a comparison is made with a digital scale there is a difference in reading the weight of the item, but the difference is only slightly, the temperature sensor can read the temperature and humidity properly, and the use of the blynk application the Sterilizer Box system can run as desired. System testing is carried out with the Black Box testing system, and it can be said that the Sterilizer Box system can be useful to be implemented in the community as an effort to prevent the spread of Covid-19, in this study the use of the components used has little difference with the tools that have been used. exists, and the use of disinfectant liquid that has been tested by a laboratory and already has an official distribution permit can be used as an effort to prevent the spread of the Covid-19 virus.

Keyword : Covid-19, Sterilizer Box, Microcontroller, Mist Maker, Antiseptic.