EM 110 DIPLOMA OF MECHANICAL ENGINEERING

UITM CAWANGAN JOHOR, PASIR GUDANG CAMPUS

MEC 322

(MECHANICAL ENGINEERING DESIGN)

PROJECT :

DOOR-VID (SELF SANITIZING DOOR HANDLE)

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ABSTRACT

As we know, the coronavirus COVID-19 pandemic has been spreading to all over the world. COVID-19 can be spread through direct or indirect or close contact with the people infected. Hence, we decided to create a machine which is an automatic sanitizer that can sanitize that door handle. Door handle can increase the transmission of the virus because people always have a direct contact with it especially in busy places such as hospitals or banks. We use movement of the door to activate the water pump and motor to rack and pinion. It will lift the sponge holder which will be sliding along the door handle. The sanitizer will move by gravity onto the door handle and the sponge will wipe the door handle.

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1.0 INTRODUCTION

1.1 Overview of the Project

The project is about an automatic self sanitizing door handle that mainly used to sterilize the door handle and minimise the risk of infection COVID-19 by contact. This product has much more improvement which it can automatically clean the door handle by itself. This project usesa electrical and mechanical parts to achieve the desire project.

1.2 Objective

This project is aims to design self-sanitizing door handle that suitable for any public

place.Specifically, the objectives are as follows: -

i) To reduce the chances of being infected or spreading COVID-19.

- The virus that causes COVID-19 is thought to spread mainly from person to person. So, this product works immediately and effectively in order to kill bacteria and most viruses

ii) To help national efforts to combat the current covid-19 pandemic.

- coronavirus is neither the deadliest or contagious virus known in this timeThisproduct can avoid risks of disease and death.

iii) To avoid the close contact between people who are sick.

- Covid-19 virus can be spreaded by close contact or through droplet frommouth and nose so this product is conventinal to prevent the spread.

1.3 Scope of the Project

This project involves the manufacturing of device that capable to clean the door handle whilesanitizing it. It does not require man power as it cleans the door handle automatically. It also saves time to the labor in charge or the cleaners from keep cleans every door handle in thebuilding every times. The product is attached on the door handle with clamps. The product does not require the stand. This feature is to prevent from falling or slipping down. The price for the product is quite reasonable since the main feature required electrical motor and mechanical parts. The materials used in the product are light and much cheaper metals