

UNIVERSITI TEKNOLOGI MARA

**DESIGN AND FABRICATION OF
ECOFRIENDLY SWEEPER**

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ABSTRACT

COVID19 pandemic is a global threat to human lives in the clean environment. Sweeping has been a very essential part of human clean their surrounding. Every home or place has some sort of broom or other sweeping product that are used to clean up their house, the canteen , the classes and any place. People only can clean the rubbish or dust with the traditional method by using separated broom and dustpan, which is taking a lot of work and time regularly. In addition, most machines with power supply in the market price are not suitable in size and not reasonable priced. Therefore, an ecofriendly sweeper were designed and fabricated . This product went through a design selection process and create an isometric view by using SolidWorks 2019 software. The ecofriendly sweeper will work by manual hand. Analytical of the critical part will be carry out. This machine shall help to keep the house, the collage, the canteen or the hall areas be clean. Other than that, this machine also designed to have adjustable height to make user feel comfortable to clean the surface. As a expected result, the production of this product will run successfully to achieve the objectives and a few suggestions was accepted to improve this machine. Generally, this manual machine innovation may have the potential to be notice by the users such as cleaners or housewives.

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CHAPTER ONE INTRODUCTION

1.1 Background of Study

Nowadays, the process of sweeping the dust and rubbish requires time and human manpower. The manual method like using separated broom and dustpan is too take a lot of time the cleaner. Thus, the eco-friendly sweeper will be operated manually so it can be as alternative for conventional electric cleaning machine. The eco-friendly sweeper is fixed with a pair of wheels which are connected with the shaft. The shaft makes the two wheel connected to each other. The wheels are moved to the specific position with the help of manual force, which the handle is provided to move. The handle can be adjusted for a required height and are provided three adjusting holes. The brush moving following the direction of the wheels move and the brush sweep the dust or rubbish into the waste-collecting box. At last, the waste collection box is removed to dust and rubbish into the bin. This system uses wheel to control the movement of the sweeper. The sweeper can easily collect the dust and rubbish in a short time. It significantly useful for cleaners to organize their work to clean up the place. The idea of creation of this project is called a Design and Fabricate of Eco-Friendly Sweeper.