



UNIVERSITI TEKNOLOGI MARA

MEC299

**DESIGN AND FABRICATION OF
CLEANING DEVICE FOR OFFICES**

MUHAMMAD IRFAN ZIKRI BIN ZAMZURI

2020833302

SUPERVISOR:

MADAM ROS ATIKAH BINTI ABDUL KADIR

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ABSTRACT

Cleaning is essential one to make the environment sanitary. Many cleaning devices for office are available in the market such as mop, vacuum, brush, and others. Nowadays, the current mop design has limited function ability where the human need to use extra energy to use the mop. The current mop also rotates 90%, thus the efficiency of cleaning process also cannot be achieved. In this project, new mop design will be fabricated that consist of multifunction, lightweight and easy to handle. Some manufacturing process will be use in this project such as milling, cutting, drilling etc. As a result, a lightweight with multifunctional mop that will help human being reduce to energy usage and at the same time save the time.

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CHAPTER 1

INTRODUCTION

1.0 Introduction

This project deals with designing and fabrication of room cleaning device for office. The goal of this project is to reduce the cleaning time and energy of human being. There are many types of cleaning device for office such as vacuum cleaners, pressure washers, floor buffers and polishers, mop etc. A floor mop is a mass or bundle of coarse strings or yarn or a piece of cloth, sponge, or other absorbent material, attached to a pole or stick. It is used to soak up liquid, for cleaning floors and other surfaces, to mop up dust, or for other cleaning purposes. The current mop has many disadvantages such as requiring a lot of energy because it may require you to mop or scrub hard to clean up dirt on the floor. Existing mops also take up a lot of space to store and are difficult to carry anywhere.

1.1 Background of Study

Cleaning is the main basic need for all human beings, and it is necessary for daily routine process. The conventional floor cleaning device is most widely used in many applications such as example roads, railway stations, airports, hospitals, bus stands, in multi buildings, colleges etc. Usually, this device uses lot of human energy for its working operation. From the new design, it is expected that the product is user friendly. The materials use is also low cost and it can be easily fabricated and easy to use and control. It is better alternative compared to existing product as shown in figure 1. The manually operated eco-friendly floor cleaner can work very efficiently with respect to covering area, time and cost of floor cleaning process compared with the existing device. Also, it is economical to use.



FIGURE 1. Current mop

1.2 Problem Statement

Nowadays, the current mop design has limited function ability where the human need to use extra energy to use the mop. The current mop also rotates 90%, thus the efficiency of cleaning process also cannot be achieve. The current mop has many disadvantages such as requiring a lot of energy because it may require you to mop or scrub hard to clean up dirt on the floor. Existing mops also take up a lot of space to store and are difficult to carry anywhere.