

**UNIVERSITI TEKNOLOGI MARA**

**INNOVATIVE GARBAGE  
COLLECTOR FOR SMALL  
WORKER APPLICATION**

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## **ABSTRACT**

Cleaning is a basic necessity for all humans, and it is required in the daily regular process. The traditional road and floor cleaning machine is most commonly used in numerous applications such as highways, railway stations, airports, hospitals, bus stops, multi-story buildings, universities, and so on. This machine also needs human energy to operate. It is both user and environmentally friendly. In my project, I intended to employ readily accessible materials at a minimal cost, as well as materials that are quickly made and simple to use and regulate. There is a power outage throughout the summer, and most road cleaning devices are not used efficiently as a result. It is a superior alternative to traditional machines. The environmentally friendly manually operated. When compared to existing machineries, the manually operated eco-friendly road and floor cleaner can work very efficiently in terms of covering area, time, and cost of the road cleaning process. It is also cost effective to utilize.

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# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of Study

Cleaning is an important part of the everyday routine. Cleaning also effectively benefit and safeguard human health both directly and indirectly. At the same time, multiple type of problem and diseases can be avoided [1]. So, the idea of this project is also contributed to the environmental hygiene that is innovative garbage collector [2]. In general, numerous machines such as electric motors, diesel engines, and robots are implemented to clean the floor and the road in the present period. However, such processes produce a lot of pollutants, require a lot of maintenance, and are difficult to carry out. So, in order to save energy and the environment, a user-friendly garbage collector machine is required. A manual-operated cleaning machine that can be used as a substitute for traditional electric cleaning machines [3].

### 1.2 Problem Statement

Cleaning staff workers usually has problem when they found out that the size of their cleaning brush is not suitable to collect bigger size of the garbage. So, they need a better design of the mechanism so that it can collect all type of garbage either big, small, dry, or wet [4]. Besides, the workers use more time and energy to clean. It is because, the old type of cleaning equipment like broom involves multiple part of their body to clean and collect the garbage [5]. So, more energy and time will need to clean the area.

### 1.3 Objectives

The main objectives of this project are:

- i. To design a garbage collector with a better form of cleaning tool that can be used for small worker application.
- ii. To fabricate a garbage collector that have a better efficiency by improving the design of the project.