

**UNIVERSITI TEKNOLOGI MARA**

**DEVELOPMENT OF A PROTOTYPE  
PET LITTER SAND FILTERING  
MACHINE**

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## **ABSTRACT**

Nowadays there are many veterinary clinics and animal hotels that provided care for pets and other animals. One of the important aspects that need to be maintain is the cleanliness of the pet and its surrounding. The pet litter station for example needs to be cleaned from time to time by separating solid feces from the sand by scooping manually using a shovel. To provide assistant to this process, a Pet Litter Sand Filtering Machine is developed. The objective of this product is to develop a semi-automatic pet litter sand filtering machine. This product works through a crank mechanism that connects the rod to the filter and be driven by an adapter and speed regulator circuit which controls the speed. The product is also movable because it is attached with wheels. This product is targeted to the pet owners, veterinary and clinics because it is easy to use and help clean the pet litter in a faster and convenient way.

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# CHAPTER ONE INTRODUCTION

## 1.1 Background of Study

Cleaning is an important aspect of our everyday lives. We need to keep our environment clean and fresh. To pet owners who have a lot of pets such as cats and dogs, it certainly has little bit of difficulty maintaining their pet's hygiene.

In this context of consumer's product, usually, they will clean the faces of their pet by using a faces shovel. This is tiring and it takes a longer time to do the task. So that, in this final year project, I will create an innovation project to easily the work of pet owner. In addition, with today's ever-increasing technology, it is possible to invent a product that using existing technologies. The purpose of this project is to clean the animal faces by simply pressing a button or switch. This pet litter sand filtering machine is fully useful for veterinary, pet hotel and so on because they will do the cleaning 2 time per day. So, this machine can help the worker to clean a lot of faces in a short time. One of its strong merits is that it can filter the sand efficiently and neatly after. It significantly useful for people who are do not like dirty and dusty and it saves a lot of time and energy for all users. Thus, the idea of creation of this project is called a Pet Litter Sand Filtering Machine.

## 1.2 Problem Statement

Many pets litter boxes for sale but only the box. So, the owner needs to keep the litter box daily clean-up to eliminate odor and bacterial build up from the feces which can affect the pet's health. So that, with innovation of Pet Litter Sand Filtering Machine will make the work clean and neatly. Other than that, the normal clean-up requires the owner to scoop the feces and affected sand with a small shovel which can be laborious, dirty and slow. So, the animal will be able to dispose of faces comfortably. This will reduce the burden on veterinary workers, pet hotels and people who have many pets at home.