

**UNIVERSITI TEKNOLOGI MARA**

**DEVELOPMENT OF A SEMI-  
AUTOMATIC CAT LITTER BOX**

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## **ABSTRACT**

The intention of this project was to create a functional and cutting-edge litter box that meets the requirements of cat owners. The idea was to give owners and cats alike alternatives that make keeping things clean and hygienic simple. The initiative aims to improve all aspects of cat ownership by putting a strong emphasis on usability, utility, and practicality. Cat waste management problems included odour control, time-consuming waste removal, and the cost of the litter boxes. In order to overcome these issues, the initiative created a cat-friendly litter box with mechanical elements for effective waste disposal. The project's capacity to reduce health concerns associated with waste disposal, promote convenience for cat owners, enhance environmental cleanliness, and save time is what makes it significant.

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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of Study**

Having a cat make you happy and content. Cats may provide many benefits to its owner, both mentally and physically such as reduce loneliness and stress [1]. They are independent creatures who like to explore, but also can develop strong ties with their owners and other reliable people. Although cats are independent, owning one will take a substantial time commitment. Cats require committed or responsible owners in order to maintain their pleasure and security. A clean litter box is a necessary for cats. A litter box is important because most of the domestic cats live indoors. So, it must be cleaned daily to prevent smells.

This project was to develop a unique and practical litter box design that would perfectly suit the requirements of cat owners. It is to create solutions that make it easier for cats and their owners to maintain cleanliness and hygiene. This project intends to produce a litter box that improves the overall experience of cat ownership, making it more joyful and simple for pet owners to care for their feline companions by focusing on ease of use, functionality, and practicality.

### **1.2 Problem Statement**

There are several issues with cat waste management at the moment that need to be fixed. First of all, it can take more time and effort to physically collect and dispose of cat feces using the traditional approach, depriving cat owners of vital time and energy. Secondly, the foul smell coming from cat waste, which not only makes people uncomfortable but also poses a risk to their health [2]. Lastly, even though automatic litter box machines provide a practical solution, their exorbitant price frequently prevents many cat lovers from affording them. These challenges highlight the need for innovative and cost-effective ways to address odour, expedite the waste treatment