

# UNIVERSITI TEKNOLOGI MARA KAMPUS PUNCAK ALAM

# FACULTY ARCHITECTURE, PLANNING AND SURVEYING CENTRE OF STUDIES TOWN AND REGIONAL PLANNING

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# **COMPANY'S LOGO**





# **CHAPTER 1**

#### 1.0 PRODUCT DESCRIPTION

#### 1.1 Introduction

The idea started when rats breached the strategic area, especially at the premises business such as at restaurant as well as the frequency of rats of the rat hit people public. Therefore, a new approach is thought to be that problems can be mitigated or controlled. After initial observation towards the unmaintained back lane of the commercial area at Saujana Utama, the team had chosen a product that we believe can contribute to the owner of the commercial area in order to promote a healthy lifestyle of the community. The product is Probin 2000 which is innovation to improve the function of the rubbish bin. A bin that is built to allow multifunctioning of grind and mouse trap thus enhance the quality of our country environment as well as healthy lifestyle that may attract the market. Based on the Kementrian Kesihanatn Malaysia (KKM), there has been an increase in statistics on Leptospirosis infections coming from the rats of the mice showing the results are increasing year by year and it is very worrying and it should prevent it from staying healthy. The other issue related to the increasing of food waste in Malaysia as refer to the Solid Waste Corporation of Malaysia (SWCorp), in 2015 the food waste in Malaysia reached 15,000 tons daily thus will harm our environment itself since he dumpsite might not support a lots of food waste done by peoples. It need to be reduce as to overcome the issue of food waste increasing since the space of dumpsite very limited. So that, ProBin 2000 it's the product to solve the problem because the innovation of rubbish bin will be able to save time, cost, space and important thing is save our environment. Proposed solutions by designing a 2 in 1 trash bin the waste bin serves as a mouse trap. This project is expected to reduce population problems rats and can save on overtime work costs.

# 1.2 Purpose of development

The purposes of the product development are:

- To solve waste disposal problems and reduce rats in commercial areas.
- To reduce population problem of rats in commercial area
- To save the environment because recycling bin can save energy, it also reduces greenhouse gas emissions, which helps to tackle climate change.

## 1.3 Product Concept

- To ensure it works effectively some modifications and improvements have been made. The result of the innovation is called Transit Killer Rat (TKR) which is conceptualized 2 in 1 works as a bin and at the same time can be trap rats.
- Another concept for this product is method of waste management to reduce solid waste production such as recycling bin and waste grinder.
- Basically to turn on waste grinder, need electric power but for this product we don't need the electric power to work because for this product we use solar energy.

# 1.4 Application

#### 1.4.1 Functions

There are divided into three separated partitions with different function namely the recycle waste part, the waste disposal part, and the mouse trap.

## a) Recycle Waste

- The trash will be separate to three partitions which are the paper, aluminium / plastics, and glass.
- The trash then will be taken to a recycling center for processing.

## b) Waste Disposal

- The waste disposal will be separate into special bin on the left.
- When it reaches the specified amount of garbage it will be grind into pieces.
- The trash than will be taken to the garbage disposal center for disposed purposed.

#### c) Mouse Trapper

- The product used the Multiple Catch Mouse Trap that is capable of automatically capturing one mouse after another.
- Mice that interested in the smell of garbage will enter through the lane provided in the bin.
- The patented trap-door system will not allow the mouse to be out when it enter the trapper.
- Multiple catch traps do not have any kill mechanism, hence can be used for catch and release rodent control.