

**UNIVERSITI TEKNOLOGI MARA**

**AUTOMATIC DRAIN RUBBISH  
COLLECTOR**

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## **ABSTRACT**

Drain is one of the important systems for waterflow to prevent from flash flood happen. But some drainage does not have it because of waste thrown that make the drain clogged. In order to overcome the problem, machine was design to trap and collect all the rubbish automatically. The problem occur that makes me want to do thisproject is that worker did not stay at the drain all of the time to collect the rubbish because they have their own fixed time to collect it which can cause some rubbish willbe missed. Therefore, morphological and Pugh chart approaches was used to finalize the design of machine. Then, the finalize design will be analyzed to ensure that the machine could collect all the rubbish automatically. It can be concluded that, this project would be success when the machine able to collect rubbish in the drain automatically.

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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of Study**

Nowadays, we can see some pictures or videos posted in social media that shows some drain that is full with rubbish and waste that blocked the water flow of the drain. It shows the problem that we have regarding the situation of the drain which is clogged because of the rubbish. Due to the blocking of the drainage system, we may face problem like flood or flash flood during rainy seasons as well as normal days. We also can see that the wastes will get overflow on the roads which is a big problem mostly in rainy seasons.

It is important to have a clean drain that have a good waterflow to prevent from having bad situation such as flash flood. We need to create a machine that can trap and collect all of the rubbish and waste that can block the waterflow.

### **1.2 Problem Statement**

A proper drainage system will let the water flow directly to the specific points where it need to be. However, if the drainage system is clogged, it will block the water from flowing to the specific point and the worst case is that it can cause flash flood.

Some of the drain that we have is clogged because of some dry leaves that fall from trees and the waste or rubbish that was thrown into the drain which make the waterflow become bad. Even though there are cleaning workers that will collect them, but they already have their own working schedule to do the job and they did not stay there all of the time. So, some waste or rubbish will be missed by them and will make the drain clogged.