

# UNIVERSITI TEKNOLOGI MARA CAWANGAN JOHOR, KAMPUS PASIR GUDANG DESIGN REPORT OF AQUA THRASH SCOOPER J4EM1105C (C4)

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#### **ABSTRACT**

Thrash scooper or thrash net are widely used nowadays to collect thrash in drain. These tools exist and widely used in market to clean the drain. These existing tools, is wasting too much time for user. Although these tools easy to use, it's still has disadvantages. The users need to enter the drain to collect the thrash if the thrash at deeper position in deeper. So that we innovate these tools into a machine. The name of the machine is Aqua Thrash Scooper. This machine main purpose is to take all the thrash out from drain without use human energy. This machine uses current energy where the water current in the drain will be the source of the energy. This machine is safe to use for everyone, because it has strong frame and also light. This machine is automatically moving because its move by the current. This machine will help in reducing thrash in drain that were thrown by irresponsible groups.



## TABLE OF CONTENTS

Title	Pages
1.0 Introduction	1
1.1 Overview of the project	2
1.2 Design Objective	2
1.3 Scope of Project	3
1.4 Significance	3
1.5 Project Planning	4 - 5
2.0 Problem Definition	6
2.1 Problem Statement	7
2.2 Problem Identification	8
2.3 Customer Requirement	9
2.4 Product Design Specification	10
3.0 Literature Review	11 - 13
4.0 Concept Generation and Evaluation	14
4.1 Concept Generation	15 - 20
4.2 Concept Evaluation	21 - 23
5 0 Embodiment Degian	24
5.0 Embodiment Design 5.1 Layout Design	25 - 26
	27 - 32
5.2 Engineering Calculation	
5.3 Engineering Analysis	33 - 34
6.0 Detail Design	35
6.1 Assembly drawing	36 - 43
6.2 Exploded drawing	44 - 51
6.3 Part Drawing	52 - 88
6.4 Bill of Material	87
6.5 Cost Analysis	88
7.0 Prototyping	89
7.1 Fabrication Detail	90 - 98
7.2 Product Manual	99 - 102
7.3 Product Testing	103 - 104
8.0 Conclusion	105
8.1 Conclusion	103
8.2 Recommendation for Future Work	100
9.0 Appendices	108 - 126
	1



#### 1.0 OVERVIEW OF THE PROJECT

In this era of globalization, many items have been redesigned by engineers to produce more effective and convenient products. But there is still a lot of knowledge that has not been explored to be incorporated in existing products or goods. Therefore, it is the young engineers who are responsible for doing that. They can apply existing ideas from their research with newideas to produce products that bring convenience to consumers.

For our Final Year Project, we plan to modify and upgrade existing thrash trap products or thrash collector because as symptoms of illegal dumping of garbage in drain areas increase and cause clogging. If this matter is not taken seriously, the potential for flooding is very high. Therefore, we decided to make a thrash trap that is simple and easy to use. This product can be used by everyone who wants to clean a drain.

This existing thrash trap and collector is very unsatisfactory for the users because it stilllacks the characteristic features suitable for catching trash in drains or rivers. It has non-durablenet problems, low material quality and short lifespan. We will try to produce new products that can solve the problem

#### 1.1 DESIGN OBJECTIVES

- i. To improve existing thrash trap and collector
- ii. To produce products that are easy for consumers
- iii. To overcome the problem of trapping garba