

**UNIVERSITI TEKNOLOGI MARA**

**DESIGN, ANALYSIS AND  
FABRICATION OF PORTABLE  
WASHING AND DRYING MACHINE**

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## **ABSTRACT**

Washing and drying clothes are chores, yet we do not have many alternatives to do so. For a family person, using washing machine is a way to wash clothes, as it lessens the burden. Unfortunately, washing machine is not accessible to everyone and the other way to deal with dirty clothes is wash by hands. One of the affected groups are hostel students – washing machine is very limited to them. This project is here to help the less privilege ones without washing machine to be able to wash clothes in a lot easier way by using a portable washing and drying machine. This project goes through many phases and aspects to fill the customers need based on recommendation and survey from every layer of life. All the findings are then turn into ideas to finalize the design and model for this project.

## **ACKNOWLEDGEMENT**

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# TABLE OF CONTENTS

	<b>Page</b>
<b>CONFIRMATION BY SUPERVISOR</b>	<b>ii</b>
<b>AUTHOR'S DECLARATION</b>	<b>iii</b>
<b>ABSTRACT</b>	<b>iv</b>
<b>ACKNOWLEDGEMENT</b>	<b>v</b>
<b>TABLE OF CONTENTS</b>	<b>vi</b>
<b>LIST OF TABLES</b>	<b>viii</b>
<b>LIST OF ABBREVIATIONS</b>	<b>xi</b>
<b>CHAPTER ONE : INTRODUCTION</b>	<b>1</b>
1.1 Background of Study	1
1.2 Problem Statement	1
1.3 Objectives	1
1.4 Scope of Work	1
1.5 Significance of Study	2
<b>CHAPTER TWO : LITERATURE REVIEW</b>	<b>3</b>
2.1 Market Analysis	3
2.2 Information On Existing Products, Patents and Standard	8
2.3 Product Design Specification	10
<b>CHAPTER THREE : METHODOLOGY</b>	<b>12</b>
3.1 Introduction	12
3.2 Concept Design	12
3.3 Engineering Calculation	17
3.4 Finalize Design, Assembly Drawing	18
3.5 Engineering Analysis	19
3.6 Cost Calculation for The Product	21
3.7 Fabrication Process	25
3.8 Complete Assemble	29

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of Study**

Maintaining cleanliness is the essential part of healthy living because it is the cleanliness only which helps to improve our personality by keeping clean externally and internally. Washing clothes is a part of maintaining cleanliness, where our clothes need to be clean and smells good. If we do not wash our dirty clothes, it will affect the personal hygiene the sweat and other secretions from the body will make our clothes a natural habitat for the microorganisms. Hence, the dirty clothes may cause sickness.

### **1.2 Problem Statement**

The current conventional ways to wash and dry clothes are by using washing machine or by hands. Washing and drying clothes can be hard when washing machine is not accessible. Washer machine may sound like a good idea, but it requires to wash the clothes in big batch and not accessible to everyone. Meanwhile, washing by hand cost a lot of time and energy. This could be troublesome during urgent time, where some people needed to use their used shirt as soon as possible for special occasion.

### **1.3 Objectives**

The main objectives of this project are:

- a) To design a washing and drying machine that is portable
- b) To fabricate a machine to wash and dry clothes

### **1.4 Scope of Work**

The scope of work for this project are:

- a) Understanding the mechanism and electronic involves in this project.