

UNIVERSITI TEKNOLOGI MARA

**DESIGN AND FABRICATION OF
WET CLOTHES' SPINNING
MACHINE**

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ABSTRACT

There are some types of clothes that need to use hands as the material of clothes are sensitive and it is cleaner, but it require enough pressure to remove the water from the clothes. It takes a lot of energy and time to squeeze a shirt. The aim of this project is to design and fabricate a wet clothes' spinning machine. This machine has been designed in Solidworks and fabricated in real life by using a plastic basket for the clothes to be loaded into, slotted angle bar as a frame, polycarbonate sheets as the body cover, a DC motor that has to spin the basket, and a power adaptor as a supply to convert AC (alternating current) to DC (direct current) to become a prototype. This semi-automated machine is powered by an ac-to-dc adaptor. This machine is benefit to college students because it has wheels for move everywhere.

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TABLE OF CONTENTS

	Page
CONFIRMATION BY SUPERVISOR	ii
AUTHOR'S DECLARATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS	xi
CHAPTER ONE : INTRODUCTION	1
1.1 Background of Study	1
1.2 Problem Statement	2
1.3 Objectives	2
1.4 Scope of Study	3
1.5 Significance of Study	3
CHAPTER TWO : LITERATURE REVIEW	5
2.1 Comparison with Available Products	5
2.2 Related Manufacturing Process	8
2.3 Sustainability Related Items	11
2.4 Patent and Intellectual Properties	12
2.5 Summary of Literature	15
CHAPTER THREE : METHODOLOGY	17
3.1 Overall Process Flow	17
3.2 Detail Drawing	20
3.3 Engineering Calculation and Analysis	32
3.4 Bill of Materials	35

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Clothes washing is a common occurrence in our daily life. Washing clothes can be done in two ways: traditionally with your hands or in a washing machine. The mechanism of a washing machine involves rotating the whole drum about a horizontal axis or vertical axis depending on its type. The drum has lots of small holes to let the water go in and out for the washing and spinning process. Some washing machines have an agitator and an impeller. The general function of a washing machine is to wash some dirty clothes, rags, or fabrics.

These issues are specifically addressed to students who live in dorms. Many of them still do things the old way, with their hands. One of the reasons students use this method is because of the clothes they wear. The materials of clothes are sensitive, especially cotton and silk. Both need extra care to keep their materials in good condition because they can be used for longer periods of time, are more expensive, and their materials will not wear out. Next, the wringing process is tiring, especially dealing with thick and heavy clothes such as duvets, towels, and bedsheets.

A simple new design of a wet clothes spinning machine has been created for students living in dorms. The goal remains the same as previously since it will spin to dry your clothes after you have washed them by hand. By using a DC motor as the main component which converts electrical energy to mechanical energy, the basket inside the bucket will spin faster as a washing machine to dry the clothes before hanging it to ensure the clothes are easy to dry under the sun. It is also portable and easy and did not need a plug. It also moves everywhere as it has a coaster wheel underneath.