

UNIVERSITI TEKNOLOGI MARA

**DEVELOPMENT OF A PROTOTYPE
VEGETABLE SLICING MACHINE**

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ABSTRACT

Nowadays, there are many people are still using manual cutting vegetable method which is chopping and slicing by using hand knives. This project is to help them to expose more to the technology and make their life easier. The issues that are coming out for this project are the are a lot of works to do by a housewife that need to settle every day, manual chopping or slicing method can be dangerous because our hand are more expose to the sharp part of knives and demand for low price vegetable slicing machine. The objective of this project is to design and analyze a low-cost and small-scale machine for housewives and to develop the safety to the machine to avoid injury. This project will be use direct current because it will become a portable machine and use a dc motor that are used to move the cutting blade. The frame for this machine is use aluminium profile to make sure it can be lightweight machine for housewife use everywhere. This machine will be expected to make life easier for housewives.

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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	xx
LIST OF FIGURES	xx
LIST OF ABBREVIATIONS	xx
CHAPTER ONE : INTRODUCTION	1
1.1 Background of Study	1
1.2 Problem Statement	1
1.3 Objectives	2
1.4 Scope of Study	3
1.5 Significance of Study	3
CHAPTER TWO : LITERATURE REVIEW	4
2.1 Benchmarking/Comparison with Available Products	4
2.2 Related Manufacturing Process	7
2.3 Sustainability/Ergonomic Related Items	10
2.4 Patent and Intellectual Properties	11
2.5 Summary of Literature	14
CHAPTER THREE : METHODOLOGY	15
3.1 Overall Process Flow	15
3.2 Detail Drawing	17
3.3 Engineering Calculation and Analysis	23
3.4 Bill of Materials	26
3.5 Fabrication Process	27
3.6 Functionality of Prototype	33

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Vegetables are defined as a good and fresh parts of plants that provide nutrition to human body. Nowadays, vegetables have been very important to human daily life because it can help them to protect their body from any illness. There are many ways to make preparation of vegetables that everyone does it such as washing, chopping, steaming, boiling and so on. But the most important one is the way that they cut their vegetable before cook it. There are two types on how people cut their vegetable which is chopping or slicing.

As following the research that have been done towards many people, more people are likely to use slicing method than chopping. Slicing is form of size reduction technique which we cut the vegetable into thin slice that are relatively broad in comparison to slice depth. This method is more effective on the effect of the flavour from vegetable by the larger of surface area.

The use of knives was the major tools for slicing vegetable such as tomatoes, onions, carrots and so on. In the era of technology, there were different manufacturers that are trying to look forward on how to reduce time wastage when used knives to cut or slice and avoid injuries that caused by knives. It can also help to slice more quantity of vegetable at the one time better than using knives that is only used for small quantity of vegetable.

1.2 Problem Statement

In the ways to help many people, there are many new technologies that have been created by the manufacturers to solve the problem that people faced in life. For this project, one of the issues that are come out is there are still have people especially housewives that are using manual slicing or chopping in this