

UNIVERSITI TEKNOLOGI MARA

**DESIGN AND FABRICATION OF
AUTOMATIC VEGETABLE SLICER**

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ABSTRACT

A fabrication of a vegetable slicer will be proposed to this project. The objective and main purpose is to help those small business owner or food catering industry that want to make massive output of sliced vegetable when doing cooking activities at their area. The vegetable slicer tools will be fabricated using stainless steel material. Some fabrication processes of the product like cutting process, grinding process and assembly process will proposed. Conclusion, it will help people especially small business owner, food catering industry, small stall at side road doing cooking work with less energy used and user friendly.

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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	2
1.3 Objectives	3
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	8
2.4 Summary of Literature	9
CHAPTER THREE : METHODOLOGY	10
3.1 Overall Process Flow	10
3.2 Detail Drawing	12
3.3 Engineering Calculation and Analysis	17
3.4 Bill of Materials	26
3.5 Fabrication Process	37
3.6 Functionality of Prototype	31

HAPTER ONE

INTRODUCTION

1.1 Background of Study

Vegetables is classified as a part of plant that can be eaten as a whole or part of it. Vegetable output in this world is has increased globally over the years. For example, there was over four times increase in world vegetable production from 2001 to 2011.[1] Most of the growth is due to a long-term technological advancement. This vegetable production has grown become a huge scale to meet the needs of supermarkets, retailer, and ordinary people in household. The main issue occurs in food industry process, such as canning, when it comes to cutting the size of the group of vegetables to be easily consumed by the people. Manual cutting and slicing of vegetables has shown to be time intensive and prone to food contamination, resulting in high incidence of foodborne sickness. Various techniques of vegetable size reduction have been implemented, including manual, electric, and automated approaches. The major goal of the project was to create a design that simplifies, saves time, and is comparatively cheaper and efficient throughout the process of vegetable size reduction.[2] Nowadays, automated machines are important part of people daily routine. The automated machines have continuously saved time consuming and carry the task efficiently. Kitchen equipment is being essential to commercial kitchen and for a housewife in a fast-paced life. It is a great demand in worldwide market of its reliability.

1.2 Problem Statement

Existing vegetable cutters and slicers were created using a variety of criteria. Vegetable slicing technology has been around since the 1970s. Traditional vegetable slicing methods have been for a long time when people use knife to slice or cut their vegetables. It is categories as cheapest and easiest method because it does not require a complicated mechanism.[3] This method comes with problems. People frequently cut themselves while attempting to produce a proper cuts and slices of vegetables. The structure of the slicer can be separated into horizontal or vertical depending on the shaft and bearing of the slicer's assembly. There are typical cuts and slice like brunoises, macedoine and other type that