

UNIVERSITI TEKNOLOGI MARA

**DESIGN AND FABRICATION OF
REMPEYEK MAKING MACHINE**

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ABSTRACT

Rempeyek is a common traditional cake that are origin from Indonesia and are now widely eaten by people from Malaysia. Rempeyek are usually make by people at home to serve the guest during any feast or celebration. The problem occur by this rempeyek is that it usually served in a large quantity since it gets a good response from the guest. People like rempeyek so much. However, due to this, it requires many efforts, time and energy to make rempeyek in a large quantity. So, it requires a machine that can produce rempeyek in a large quantity in a short period of time. The objective of this project is to design a machine that can produce rempeyek with higher productivity and to develop a fully automatic rempeyek machine that can operate without using a lot of time and energy. The results are expected to should be stable to carry the load of the flour, anchovies and peanuts. The material of the machine has to withstand heat so that the heat process can be conduct efficiently. The time of the machine to put the ingredient should be accurate with the position of the molding tray so that the ingredient can be put to the baking tray with the right amount of flour, anchovies and peanuts. The machine should be running smoothly during the process of making the rempeyek so that it can be use in the industry and helps people in making a good rempeyek.

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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	1
1.4 Scope of Study	2
1.5 Significance of Study	2
CHAPTER TWO : LITERATURE REVIEW	3
2.1 Benchmarking/Comparison with Available Products	3
2.2 Related Manufacturing Process	5
2.3 Sustainability/Ergonomic Related Items	6
2.4 Patent and Intellectual Properties	6
2.5 Summary of Literature	9
CHAPTER THREE : METHODOLOGY	xx
3.1 Overall Process Flow	xx
3.2 Detail Drawing	xx
3.3 Engineering Calculation and Analysis	xx
3.4 Bill of Materials	xx

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Rempeyek is a traditional cake that are common and popular in Malaysia and Indonesia. It is commonly made during celebration or feast to serve the guest so that it will make the guest happy. However, there are problems in making this rempeyek. Making rempeyek take a lot of time to be done. A lot of people want to buy the rempeyek instead of do it manually. This is because there a lot of steps to make the rempeyek. The rempeyek must be mix with flour, anchovies, peanuts, then fill it in the moulding tray and be heated before boil it in the oil. With these problems, there are few rempeyek that are done during a long period of time to be serve or sold. In addition, rempeyek is really popular to the point it needs to be done as quick as possible without putting so much work. Thus, if these problems get overcame, it will boost the sale in the rempeyek industry. Currently, there are two ways to do the rempeyek. One way to make the rempeyek is by manually which need to make it in the kitchen. Manually means that the flour, anchovies, and peanuts need to be mix by the user without any help from machine. Then, the rempeyek need to be monitored every second for the boiling process so that the rempeyek does not get over cook. Second, there are rempeyek making machine in the industry which involved semi-automatic rempeyek machine and fully automatic rempeyek machine. The semi-automatic rempeyek machine does help the user in making the rempeyek process easier, however it still requires a lot of energy and need to be monitor every seconds too. The fully automatic making machine that are available in the industry did help a lot in making the user easier but it is expensive and the process have weakness. As an example, the fully automatic machine that are currently used does not heat the rempeyek before boiling. So, it required more time for the moulding tray to get boil in the oil. In views of the factors above, automatic rempeyek making machine is really needed. This is because automatic rempeyek making machine will automatically mix the ingredient (flour, anchovies, nuts), heat the mixture in the moulding tray and boil it in the oil in a short period of time. The idea of this project is called Automatic Rempeyek Making Machine.