

**UNIVERSITI TEKNOLOGI MARA**

**DEVELOPMENT OF A PROTOTYPE  
AUTOMATIC SAUCE DISPENSER**

**ASIF MUHAIMIN BIN MOHD SAIFUL NIZAM**

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## **ABSTRACT**

Automatic Sauce Dispenser is an engineering solution project to fix the problems that exist with typical type of manual sauce dispenser. Automatic sauce dispenser is an automated sauce dispenser that is fast, accurate and aesthetically pleasing. Due to the difficulty for user to dispense sauce using manual sauce dispenser, this project was proposed to develop the Automatic sauce dispenser that will dispense sauce automatically control by the controlling system. This project intends to design, analyze and fabricate an Automatic Sauce Dispenser that able to dispense automatically as it detects the cup. The Automatic Sauce Dispenser is a machine that can speed up the process for user to dispense the sauce because it is more efficient and less time consumable. In conclusion, the Automatic Sauce Dispenser will benefit the fast-food restaurant because to reduce time consuming and increase hygiene surrounding area.

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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 FIGURES</b>	<b>xi</b>
<b>LIST OF ABBREVIATIONS</b>	<b>x</b>
<b>CHAPTER ONE : INTRODUCTION</b>	<b>1</b>
1.1 Background of Study	1
1.2 Problem Statement	1
1.3 Objectives	2
1.4 Scope of Study	2
1.5 Significance of Study	2
<b>CHAPTER TWO : LITERATURE REVIEW</b>	<b>3</b>
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	10
2.5 Summary of Literature	11
<b>CHAPTER THREE : METHODOLOGY</b>	<b>13</b>
3.1 Overall Process Flow	13
3.2 Detail Drawing	16
3.3 Engineering Calculation and Analysis	20
3.4 Bill of Materials	22

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of Study

Design and Fabrication of Automatic Sauce Dispenser is an engineering solution project to fix the problems that exist with typical type of manual sauce dispenser. Automatic sauce dispenser is an automated sauce dispenser that is fast, accurate and aesthetically pleasing. This project is developed to dispense sauce automatically with touchless sensor. The product also invented for fast food restaurant, food court in shopping mall and hotel restaurant.

Nowadays, several restaurants mainly fast-food restaurants such as McDonald and KFC are using sauce as its desert with food. The restaurants had provided a manual dispenser or sauce packet for their customer. Due to that, this project was proposed to develop the Automatic sauce dispenser that will dispense sauce automatically control by the controlling system. Among the features of this machine was the sensor and light to fill the ingredients if it run out of sauce. This sauce dispenser relates to sensor which able it to dispense automatically as it is detect the cup when it is positioned under the faucet.

This machine is suitable for any kind of age as it is easy to use and compared to the manually sauce dispenser, users need to press the pump for the sauce to come out and some users find it hard to use it because some of the pump need to be push hard for it to come out[1].

### 1.2 Problem Statement

Nowadays there are many restaurants are still using a manual sauce dispenser which is efficiency as automatic sauce dispenser. For example, the manual sauce dispenser which is using a pump need to be press and some pumps are often having