

## **AUTOMATIC EGG BOILER**

**ABDUL HAFIZ BIN ABDUL RAHMAN  
TASNEEM BT GHAFFA  
NURUL ATIKAH BINTI MOHMAD AMIN**


A project report submitted in partial fulfillment of the requirements for the award of the degree of Diploma of Electrical Engineering (Electronics / Telecommunications / Instrumentations / Computer)

Faculty of Electrical Engineering  
Universiti Teknologi MARA

APRIL 2013

“I declare that this report entitled “**AUTOMATIC EGG BOILER**” is the result of my own group research except as cited in the references. The report has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.”

Signature :  : .....  
Name : ABDUL HAFIZ BIN ABDUL RAHMAN  
Date : 7 APRIL 2013

Signature :  : .....  
Name : TASNEEM BT GHAFFA  
Date : 7 APRIL 2013

Signature :  : .....  
Name : NURUL ATIKAH BINTI MOHMAD AMIN  
Date : 7 APRIL 2013

## **ACKNOWLEDGEMENT**

First of all we would like to wish our grateful to Allah S.W.T for blessing us to complete this project. We are very thankful for these following for their contribution in assisting us in completing our project with their ideas and guardians. Our special thanks is dedicated to our supervisor Mr. Fadhli Dzul Hilmi Bin Mohd Fauzi for helping us and his patience.

Special thanks and appreciation to our parents, family and friends for their cooperation and encouragement. Finally, thanks to our coordinator Madam Siti Aishah Cik Kar for assisting us and involved her directly toward this project. Thank you.

## **ABSTRACT**

Facing with the growth of the technology has made us aware of the mankind's problem. People nowadays tend to looking for something that do not burden their busy life and also will make their life easier than before. So, we come out with the project of automatic egg boiler to ease all of the people in this modern world on boiling the egg without any mistakes and of course, save their time and energy. An automatic egg boiler that we are going to produce is an appliance that will make the eggs boiled in two different ways, which are half boiled eggs and hard boiled eggs. In making this automatic egg boiler, we are using PIC to set the time for the water to be pumped out from the beaker outside the main container before it is enter the secondary container where the eggs will be boiled. After a while, the heater will be heated and the water will start to boil the eggs. By using the button provided, we can choose whether we want the eggs to be half boiled or hard boiled. The time needed for the two different kind of boiling is not the same. After the eggs have been boiled as needed, the hot water from the secondary container will be thrown up to the bottom of the main container. We are using the stepper motor to rotate the secondary container at  $360^{\circ}$  until the hot water safely removed from the secondary container.

## TABLE OF CONTENTS

CONTENTS	PAGE
<b>DECLARATION</b>	<b>i</b>
<b>DEDICATION</b>	<b>ii</b>
<b>ACKNOWLEDGEMENTS</b>	<b>iii</b>
<b>ABSTRACTS</b>	<b>iv</b>
<b>ABSTRAK</b>	<b>v</b>
<b>TABLE OF CONTENTS</b>	<b>vi</b>
<b>LIST OF FIGURE</b>	<b>viii</b>
<b>LIST OF APPENDICES</b>	<b>ix</b>
<b>CHAPTER 1: INTRODUCTION</b>	
1.1 Background Project	1
1.2 Problem Statement	2
1.3 Objective	3
1.4 Limitation Of Project	3
1.5 Summary	3
<b>CHAPTER 2: LITERATURE REVIEW</b>	
2.1 Introduction	4
2.2 Summary	5
<b>CHAPTER 3: PROJECT DESIGN</b>	
3.1 Introduction	6
3.2 Hardware Development	7
3.2.1 IC L293D	7
3.2.2 PIC 16F877A	8
3.2.3 LCD Display	9
3.3 Block Diagram	10
3.4 Methodology	11
<b>CHAPTER 4: DATA AND RESULT ANALYSIS</b>	
4.1 Simulation Process	12
4.2 Result	13