

**UNIVERSITI TEKNOLOGI MARA**

**DESIGN AND FABRICATION OF INNOVATIVE EGG BREAKER  
AND EGG YOLK SEPARATOR MACHINE**

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**Dissertation submitted in partial fulfillment of the requirements for  
the degree of Diploma  
(Mechanical Engineering)**

**College of Engineering**

**Feb 2023**

## **ABSTRACT**

Egg yolk and egg white are hard to separate by a person without experience and may take some time to separate them. People that work in the kitchen do not have a proper way to separate it without wasting a lot of time. The goal of this design is to make an automated egg breaker and egg yolk separator machine for kitchen people to make their job easy and make it easy to get at an affordable price. This machine also can make as home kitchen equipment because the size is not too big for home use. This machine has the potential for a home baker or small bakery that needs to take time to separate the egg yolk from the egg white. Then, Egg Breaker and Egg Yolk Separator were created to solve this issue.

## **ACKNOWLEDGEMENT**

First and foremost, I want to express my gratitude to Almighty God for providing me with knowledge, strengths, skills, and chance to pursue my diploma and complete this long and difficulty journey. Without his blessing and guidance, none of this would havebeen possible. My supervisor, Mr. Miqdad bin Khairulmaini also deserves special thanks for his great advice, honest support, and invaluable encouragement during my final year project 1 & 2. His presence, ideas and comments all helped to improve and complete this project. Finally, I would like to thank my parent Mr. Muizuddin bin Saleh and Mrs Hasni binti Osman, for their support and unending love and prayers throughout this whole process. Also, for their patience and willingness to assist me in meantime. This project will be dedicated to you both. Alhamdulillah.

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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of Study**

Egg yolks contain some vitamins including B12, B2, A, and folate [1]. Egg yolks are also one of the few foods that naturally contain vitamin D which is essential for healthy bones and teeth. The reason why the egg yolk needs to be separated from the white egg correctly is to avoid contamination. It is because the egg white can be in the egg yolk if the process separating white and yolk did not do carefully and end up might broke the egg yolk and affecting the nutritious that the egg yolk has. For the static, the European factories are the leader withing egg processing for egg processing plants for a decade [2]. But in this case, this machine has been used for commercial use only, and not for households use. The purpose of the egg yolk separator machine is basically to break the eggshell and separate the egg yolk and white yolk efficiently without using human power. It just needs to put the egg at the start of the machine and the yolk will come at the other end. A lot of companies have used this egg yolk separator machine. These machines have been commonly used in bakery used industry such as the industry that makes cookies, cake and egg noodles. The inventor of the egg breaking machine and egg yolk is CHARLES H. W/LLSEY in 1967.

### **1.2 Problem Statement**

The main problem regarding to separate the egg yolk from egg white is it takes time to separate the egg yolk by doing the traditional way. Other than that, a fully automated egg breaker and egg yolk separator machine is only available for industrial use only and the price is too high, and the size is not suitable to make it as a home kitchen equipment.