

UNIVERSITI TEKNOLOGI MARA

**DESIGN AND FABRICATION OF
EGG YOLK SEPARATORS FOR
SMALL WAREHOUSE**

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ABSTRACT

An egg yolk separator is a kitchen tool designed to separate egg yolks from egg whites. It usually consists of a bowl or cup with holes or slots in it so that when you crack an egg into it, the yolk stays in the cup and the egg whites go through the apertures. This makes it simpler to bake or prepare with the egg whites and yolks separately. Egg yolk separators come in a variety of forms, from hand-held manual machines to more complex models. The egg yolk separator in this project is designed to be a product that are much more affordable and save a lot of space for small warehouse. As such, the egg yolk separator can be folded so its easy to store. The idea comes from observing how small warehouses consume a lot of time to just make food preparation such as separating yolk egg. So to ease the burden of small warehouse owners and their workers this project come to exist. The objective of this egg yolk separator is to create an affordable alternative solution to save time and energy when separating a lot of egg. The achieved result for this project to make egg yolk separator that can separates a lot of egg in a little time. In conclusion this project should be a lot of help to small warehouse owner and workers.

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

What Is Food Preparation? Food preparation is defined as the actions undertaken to ensure food is safe for consumption or has the required flavour during its assembling process [17]. Formally, food preparation refers to the process of acquiring raw ingredients and making them ready for consumption. Preparations of the ingredients are one of the most important steps that the manager and workers need to look out the most. This because if the ingredients are in bad condition the product outcome will be affected.[1]

The fast preparation also important in food handling industry because of the time we save can be focus more on other aspect such as production and shipping [2]. One of the most common ingredients in making biscuit, cake, and any other confectionery are eggs [19]. Most of the recipe in this section needed the white egg and yolk to be separated. Separating a lot of yolk and white egg perfectly with no wasted material using labour need a lot of people with skill and a lot of experience to avoid any mistake when separating egg yolk [3].

The current solution for this issue is there are machine for separating the yolk and white egg. This machine consumes a lot of space, and the cost are quite high around RM12,000 to RM50,000 [4]. These machines are targeted for bakeries, confectioneries and pasta making company. The total egg that can be separate are around 2,500 eggs/hour to 39,000 eggs/hours depends on the machine [4]. Nevertheless, this type of machine is not quite suitable for small warehouse mostly because of the size and price.

The aim for this project is to make a smaller egg yolk separator that do not need to use any power supply and at affordable price. The design will be conducted by referring to standard engineering design process and the chosen concept will be renderer and modelled using SolidWorks 2021 [16]. A prototype will be fabricated as concept by the end of the Final Year Project 2. By change small aspect in already existence machine, the product shall provide user with desirable outcomes.