UNIVERSITI TEKNOLOGI MARA

DESIGN AND FABRICATION OF AN EGG PEELER

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ABSTRACT

The goal of this study was to determine the hardness and temperature of boiled eggs in order to determine the most effective manner to peel hard boiled eggs. For a cook, peeling boiled eggs is a challenging process. As a result, we're going to build a machine that can effortlessly perform the tasks listed above. Egg peeling machine is a piece of equipment that is used to peel some quantities of cooked eggs. Basically, our gadget is based on the manual method for peeling eggs employed in hotels, which is to shake the egg in a glass of water. This machine is ideal for anyone, especially a cook. The machine is lightweight and portable. This machine employs very basic mechanisms. This operation can also be done by a less skilled individual using a dc motor, circular disc, binary linkages, and so on. The machine is designed to reduce human effort while completing the task quickly.

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TABLE OF CONTENTS

CHAPTER ONE
INTRODUCTION

1.1   Background of Study

The eggs are one of the basic ingredients in food and commonly eaten by everyone. The whites of the eggs, in particular, are high in protein [1]. When such proteins are subjected to heat, such as when cooking an egg. Proteins coagulate, or solidify, from liquid to solid state. Coagulation is beneficial because it allows you to consume a solid egg rather than a slimy, goofy mess. Boiling eggs, on the other hand, become tough to peel as a result of the procedure. Proteins are extremely clingy. The egg white can attach to the membrane and the shell as it cooks, resulting in a broken, pockmarked egg.

The pH of an egg is also important. Proteins in egg whites with higher acid are particularly sticky [2]. Fresher eggs have a lower pH, which is why eggs from your neighbourhood farmer's market are more obstinate than eggs from the supermarket.

Most commonly used method is shaking of egg in a glass of water. The boiled eggs are peeled by using a glass of water and some human efforts. The working of this method is depending on the reciprocating motion same as our machine, but it requires the human efforts. The working of this method is. Firstly, we have to put the boiled egg in the glass but before that we have to add some water into the glass. After this hold the glass horizontally in a way that close the open mouth of the glass with hand. After this we have to oscillate it with our hand very rapidly, once the work will done, the peeled egg can be taken out from the glass with the peeled extra. The big disadvantage of this method is, we can't use multiple eggs at a time.

1.2   Problem Statement

The main problem regarding to peeling of Boiled Eggs is that the boiled eggs are very hot having temperature in range of 70-100 deg [3]. Celsius that is practically very difficult to handle and peel the boiled egg in minimum time. Our Project tries to overcome this problem