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MEC 299

**DESIGN AND FABRICATION OF ORANGE
PEELER**

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ABSTRACT

Current objects are progressively being replaced by new and improved products because of greater competition and technological advancement. However, without ergonomic design, which guarantees that people and employees are at ease and safe while performing their jobs, innovation is insufficient. Large-scale orange peeling will require a lot of labor and take a lot of time. Additionally, peeling oranges with an outdated press carries some hazards, such as finger injuries to the user. because people have become more creative in making places where others can work more easily and safely. This project is more concerned with the design and manufacture of an orange peeler.

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CHAPTER 1 INTRODUCTION		

1.0 Introduction

Citrus fruits include lemons, limes, grapefruit, and a variety of oranges, to name a few. Fruits of citrus trees and shrubs can be found on evergreen trees and bushes. Their meat is pulpy and divided into chunks, and their skins are thick. Lemons, limes, and oranges are said to have originated in Asia and then spread to other parts of the world. Lemons date back to the first century B.C. in Rome, when they were only available to the elite. In the 16th century, lemons and limes found their way to the United States. Around the same time, oranges arrived, delivered by Christopher Columbus and his men on their second journey. Grapefruits were found in the 18th century, and the first cultivated grapefruit trees were established in Florida in the 19th

century. Citrus fruits are available in a wide range of sizes, hues, and smells. They provide a variety of health advantages, including improving your immune system and lowering your risk of heart disease. [22]

1.1 Background of study

Many improvements have been made in the process of peeling oranges, where various designs have been produced to assist solve the difficulty encountered while utilising traditional ways in the process of peeling oranges. Each design is created with its unique form and personality.

Based on my research on the internet also see some designs that can put together to be a tool that can change or produce better functions to be used to the public more and more to sellers in the market so that they can produce orange juice faster and safe

Among what is referenced on the internet there are many orange peelers that can prevent injuries from happening however the design cannot peel many oranges in a short time. Thus, based on what found on the internet, a design that can peel oranges safely without injury and peel oranges in large quantities in a short time.

1.2 Problem Statement

- i) Most tools consume a lot of energy, making quick users fatigued.
- ii) The oranges to be peeled takes a while.

1.3 Objectives

- i) To design orang peeler for customer to peel the orange skin.
- ii) To fabricate orange peeler for customer to peel the orange skin easier.

1.4 Scope of work

- i) Can only be used for oranges can also be used for apples but not very suitable.
- ii) Suitable for use by fruit juice sellers because it can save time.
- iii) The rotor will rotate the orange 360 degrees.

1.5 Expected Result

What can be expected to happen from this upcoming product is a relatively high

response from fruit juice sellers as well as orange juice fans as it can do the job in a short and easy time. In addition, it does not require too high a cost to produce the product this and not too difficult to produce this product because with some search for information as well as ideas from outsiders to produce it. The figure below shown example of my expected result but the different is manual product and automatic product.



Figure 1.5: Orange Peeler Professional [1]

CHAPTER 2 LITERATURE RIVIEW

2.0 Introduction

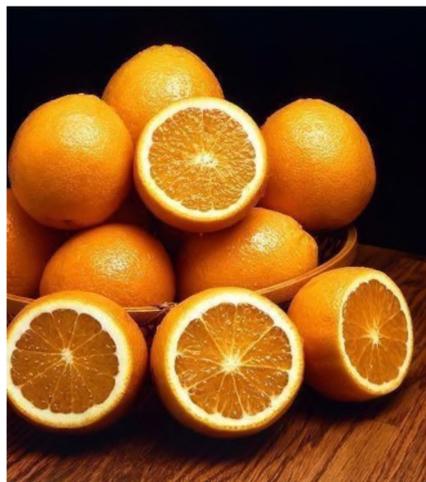


Figure 2.0: Orange Fruit [1]

Oranges are a low-calorie and high-nutrient citrus fruit. Oranges contribute to strong, clean skin and can help lessen a person's risk of a variety of ailments when consumed as part of