

**UNIVERSITI TEKNOLOGI MARA**

**DESIGN, ANALYSIS AND  
FABRICATION OF AN  
ELECTRIC FRUIT PEELER**

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## **ABSTRACT**

This project is implementing mechanical engineering features to a manual fruit peeler. Turning a fruit peeler electric and adding mechanical properties to it can save time and energy used to peel fruit. This will ensure fruit products that have been coated with chemical during farming can be peeled efficiently as peeling it using an electric peeler will be faster and precise. The main focus of electric peeler is to mainly peel rounded fruits such as potato, apple, orange and any other fruits that have similar rounded shape as them.

This project discuss about the materials and components used, mechanism chosen to be implemented and result that achieved from the system. In conclusion, time and energy saving can be achieved if the project were conducted properly using the suitable mechanism making it an invention, a step further, to ensure that everyone of all disability, ages and profession can used the electric fruit peeler.

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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of Study**

Fruit often sold with its skin that can contain multiple chemicals that were used by farmers to keep pests away and make sure it grows to have a perfect shape, look and overall condition. Produce scraper or known as a peeler is a simple kitchen tool designed to remove the outer skin of a produce that has a round shape which almost every household has. The idea of a peeler comes from a knife as it is hard to use a knife to peel cooking ingredients. Fruits are often served in large amounts in households as it is scientifically proven that an average human being is recommended to eat any type of fruit a day to have a healthy lifestyle. The general shape of a peeler consists of a handle attached to a sharp, horizontal blade that is used to glide over the surface of the products to remove the skin. It is proven that a peeler does a better job than a knife to peel, but an electric fruit peeler is generally faster and more efficient than a manual hand peeler. An electric peeler can quickly peel fruits with minimal effort, as the machine does most of the work. On the other hand, a manual hand peeler requires manual dexterity and can be slower, especially when peeling larger quantities of fruits. Electric fruit peelers are designed to be user-friendly. They come with simple controls and are powered by battery or electricity. This makes them easier to operate, especially for individuals with limited time or mobility issues. Manual hand peelers require manual force by the user and may require more skill and practice to use effectively.