

**UNIVERSITI TEKNOLOGI MARA**

**AUTOMATIC POTATO PEELER**

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## **ABSTRACT**

An automatic potato peeler is a device that can peel potatoes quickly and efficiently. All you must do is place the potato on the device, and it will do the rest. The blade will rotate automatically and peel off the skin in a matter of seconds.

The objective of this experiment is to design an automatic Potato peeler and to fabricate an automatic Potato peeler. The problem statement of this project are takes up so much time and effort, peeling manually can be messy, using a knife or vegetable peeler to peel potatoes can also be dangerous and lastly food waste.

I have designed this significant project to solve all the problem statement that consumer face in their daily lives. This automatic peeler is also compact which makes it easier to store and can be used by every household kitchen as it doesn't take much space. This project also functions well to peel completely the skin of potatoes. The design process involves a thorough analysis of existing automatic peeling technologies, market requirements, and user preferences. Prototyping is conducted to test the mechanical and electronic components, ensuring reliability and safety. Analysis on the prototype is made by using computer aided program also known as Solidworks to determine the functionality of the prototype and how much force it can handle as well as speed needed to fulfil the objective.

This project that I have specifically design has many benefits and advantages compared to other product out there. This product is cost-effective, easy to maintain cleanliness, low maintenance, durable, has an eco-friendly design and more. Results of this project created, Automatic Potato Peeler showed encouraging outcomes in both lab trials and practical applications. When compared to manual techniques, the device greatly reduced the peeling time by effectively peeling potatoes of all shapes and sizes.

In conclusion, my design for this project, The Automatic Potato can solve problems in the kitchen which takes a lot of time, and this product is able to not only save time manually peeling but also functions at its best. It can be concluded that the task for FYP 2 to build an Automatic Potato Peeler that has achieved its objective is fulfilled. The objective of fabricating this product is to design a peeling machine that can peel multiple potatoes at once in 1-3 minutes. Besides that, ensuring the machine is functional, efficient, and affordable for consumers to use.

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# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of Study

An automatic vegetable peeler is a device that can peel vegetables quickly and efficiently. All you have to do is place the vegetable on the device, and it will do the rest. The blade will rotate automatically and peel off the skin in a matter of seconds.

There are several benefits to using an automatic vegetable peeler. Firstly, it saves time and effort. Peeling vegetables manually can be a tedious and time-consuming task, especially if you're peeling a lot of vegetables at once. With an automatic peeler, you can peel vegetables much faster, freeing up time for other important tasks.

Another benefit of an automatic vegetable peeler is that it's a safer option than using a knife to peel vegetables. Accidents can happen when we use a knife, resulting in cuts and injuries. An automatic vegetable peeler eliminates the need for a knife, reducing the risk of injuries.

Using an automatic vegetable peeler can also have a positive impact on people's lives. It can make daily tasks easier and quicker, allowing us to focus on other important tasks. For example, parents who have to prepare meals for their children can use an automatic vegetable peeler to peel vegetables quickly, leaving more time for other activities.

The main purpose of this project is to design and fabricate the most suitable and efficient automatic vegetable peeler in a smaller scale. This project is targeted toward houses, small businesses, canteens and more. If the product is successfully invented, not only will it save time and money, but it will also ensure a more efficient lifestyle. In conclusion, an automatic vegetable peeler is a handy kitchen gadget that can make peeling vegetables much easier and quicker.