

**UNIVERSITI TEKNOLOGI MARA**

**AUTOMATIC PORTABLE WRAPPING MACHINE**

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## **ABSTRACT**

To prevent a goods or bags from damage during transportation, we need to wrap it properly. To solve this case we have invented an automatic wrapping machine. Objective of this machine is to simplify the wrapping process in terms of time and energy. This machine will use a motor that will rotate the arm or base and the wrapper will be hung during the wrapping process. The criteria selection of this project title is based on the total cost, the complexity of the project, the availability of equipment and the knowledge skills that we have. Machine that available in the market are too expensive and big. To overcome this problem, I fabricated machine that cheaper, small and flexible. Manufacturing process that involves to fabricate this machine is measuring, cutting, grinding, turning and welding. This machine will reduce time taken to wrap parcel, save energy and be an alternative to available wrapping machines. All the objective above are achieved and the machine successfully fabricated.

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# CHAPTER ONE INTRODUCTION

## 1.1 Background of Study

An industrial piece of machinery called an automatic wrapping machine is made to mechanically wrap goods in protective packaging materials like paper, parcel and luggage. These devices are frequently used in distribution, warehousing, and manufacturing facilities to effectively package goods for retail display, storage, or transit. Automatic wrapping machines can vary in complexity and features, but they typically involve automated processes for feeding, wrapping, and sealing the packaging material around the product, reducing the need for manual labour and increasing production efficiency [1].

Machine that available in market have their own disadvantages that can solve by develop new machine. Firstly, the machines are very expensive. It is because the material that the developer use to develop the machine. Small industry will have not enough budget to purchase it. Other than that, usually the machines will come in fixed position. It will be a problem if the buyer needs to work out of their area. It will take more time to bring and install the machine. Lastly, size of the machine. Big size will take a lot of space to put the machine. Generally small industry doesn't have a big warehouse and only depend on small shop.

The machine that needs to develop must encounter all the disadvantages. The new machine must have some criteria. Firstly, the machine must be cheaper to help small industry easy to afford it. Other than that, the machine needs to be portable to provide flexibility to buyer in term of workspace. Lastly, the machine must be small without decrease the function to easier the buyer keeps with sacrifice lot of space.

The aim of the project is to fabricate an automatic portable wrapping machine. Main goal is to easier the wrapping process for small industry. Through this project productivity will increase, save cost and save time. This project will be as a evidence for my studies in Final Year Project.