

UNIVERSITI TEKNOLOGI MARA

**RUBBER TAPPING MACHINE FOR
PLANTATION INDUSTRY**

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ABSTRACT

The process of tapping rubber usually takes a long time and requires awkward positioning. In the long run, rubber tappers might experience backaches especially the elderlies. Rubber tapping machines have been created to facilitate the process. However, these machines require a high cost and are not affordable for small tappers who only have the job to support their families. These machines also steal the hands-on action people have when tapping rubber. Therefore, "wind-up rubber tapping machine" is a downgrade of the machine that requires lower cost and can help small tappers. The project intends to make the job of tapping rubber more comfortable and entertaining. Several research and observations were made to ensure the success for the specific mechanism to work in the project. The means to produce the items were also kept in mind to make sure the cost is low and not complicated. The project was also made sure to be long-lasting.

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\CHAPTER ONE

INTRODUCTION

1.1 Background of Study

The natural rubber industry is an essential type of industry in our country. It is one of the biggest sources of profit that we have in this country. In the ranking of natural rubber net production, Malaysia is placed at number 6 with total value of RM 6,942.70 Million in the year of 2019 [1]. Therefore, there is a need to widen the industry and tools upgrading to make the production more efficient. Electronic rubber tapping machines have been created to reach this goal. Though, the cost of the tools themselves are high. Other than that, the automatic types of tools rob the empty space for more human rubber tapper. The Wind-Up Rubber Tapper is a flexible machine that is easy to work with and upgradable.

1.2 Problem Statement

The automatic rubber tapping machines that exists today requires frequent maintenance as it contains electrical components. Not to mention the automatic ones with their own brains will surely have their own maintenance schedule. Furthermore, the cost of buying them is high. The machines are also not fun to worked with as the machine would do work on its own in a rubber tree plantation, the buyer would want to get a large amount of the machines to be able to collect latex more efficiently.