

UNIVERSITI TEKNOLOGI MARA

FLEXY DRY RACK

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ABSTRACT

Clothes racks are widely used globally for air-drying laundry, especially for clothes that cannot be dried in a dryer machine. Hanging clothes racks are commonly used by those who live in apartment-style houses. However, due to the minimum hanging space provided, the amount of clothes that can be dried at one time is small, which may result in difficulty for individuals living in an apartment. Therefore, the primary objective of this project is to design a flexible drying rack that can offer maximum versatility, functionality, and space efficiency. The methodologies that will be used in this project are requirements analysis and material selection. This project will be using the concept of expansion and compression. By using this concept and mechanism, individuals will be able to dry more clothes at one time.

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

The use of clothes drying racks has always been essential for people across the country as they need to wash and dry their clothes. Many people prefer using clothes drying rack over an electric drying machine because it saves them money every time, they use it for clothes drying.

The idea for a flexible drying rack was born from the observation that most apartments provide small drying areas with limited hanging space to save more space for other purposes. However, one apartment can accommodate at least three people or more, creating a problem when the provided area can only hang and dry clothes for one to two people.

To address this issue, a designated flexible drying rack was created. This project aims to build a drying rack that can expand as needed, using linear actuators to perform the action. Additionally, the project aims to increase the amount of clothes that can be hung and dried at one time.

1.2 Problem Statement

- a) Insufficient size of drying area.

The small size of the provided drying area is not enough for a house that has multiple people.

- b) Limited hanging space.

Only a small amount of clothes can be hung and dried at one time.

- c) Difficulty in drying clothes.

The clothes cannot be dried quickly since most apartments do not have access to outdoor drying space.