## UNIVERSITI TEKNOLOGI MARA

# DEVELOPMENT OF CLOTHES DRYING RACK

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#### **ABSTRACT**

The "Clothes Drying Rack" with rain cover is a improvement of the current clothes drying rack that can function to handle the clothes without wet. Its main objectives is to ensure the clothes are not wet in rain weather, space saver for limitations space, and easily to fold and handle it. The quality of rain cover also ensure the clothes in good condition while hang it at the prototype. The research highlights the various types of drying racks, including foldable, emphasizing their versatility in accommodating diverse living spaces. The design involves many material selections to make sure the durability and efficiency in good form. The findings suggest that adopting clothes drying racks not only promotes eco-friendly practices but also contributes to fabric care, prolonging the lifespan of garments. The expected result is to create the clothes drying rack that have rain cover to cover the whole clothes and ensurethe clothes doesn't fully wet.

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## CHAPTER ONE INTRODUCTION

#### 1.1 Background of Study

Clothes drying rack is a portable device used for drying clothes indoors. It typically made from metal, plastic, or wood with multiple bars or rods where clothes can be hung to air dry. To use clothes drying rack, everyone must to leave enough space between garments for proper air circulation

The idea to innovate the drying rack was generated when observing the users need to pick up their clothes that haven't dried when it rains. Running towards the drying rack during rain can result in injuries for them. Other than that, several users have limitations with their space so they might be difficult to put the current clothes drying rack.

Several limitations had been determined during few discussions and researching to overcome those problems, this study of enhancement of new clothes drying rack had been conducted in order to make the improvement of the incapability of the previous clothes drying rack.

The aim of this project is to enhance the current function and design of the clothes drying rack. The all process will be conducted by referring to a standard engineering design process and the chosen concept will be modelled using SolidWorks 2019. A prototype will be fabricated as a proof of concept by the end of Final Year Project 2. By the improvement of previous drying rack, the product will be provided with a better mechanism and operation for the user, which is more ergonomic and technically.