

UNIVERSITI TEKNOLOGI MARA

**DESIGN AND FABRICATION OF
ADJUSTABLE WIDE
MULTIFUNCTIONAL TROLLEY**

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ABSTRACT

This report is about trolley that have always been widely used in industry. Trolley is the device used for carrying load or to transport the material from one point to another. However, the common trolley that is in the market is not really user friendly because it can harm your back bones that will lead to back pain. To overcome this problem, a new trolley was designed which could be used for multi-purpose function and can also prevent from getting a back pain while lifting and loading goods. This project will come out with a new trolley design that will help users to ease work and without worrying from getting back pain. The selection of suitable materials in the fabricating of this trolley is a loaded material which has minimum weight, long life-span and can detain heavy load. This project is about to design and fabricate a new product of a trolley that has multi-functions. The objectives for this project are to design the adjustable wide multifunctional trolley and to analysis and fabricate the extendable wide multifunctional trolley. This project is made for all ages, such as woman, senior citizen and children able to handle this machine easily.

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Trolley is a mechanism that allows people to carry or transfer object from one place to another. This project is called Design, Analysis and Fabrication Adjustable Wide Multifunctional Trolley. This product will help people that likely that frequently use the trolley transfer and carry object. This product will make the user feel super comfortable. This is because the material to make this product are come from high-quality material.

1.2 Problem Statement

In this era, there are many companies that already been produced the trolley and supplied it to various market in the world. There are also many types of trolley and have various shape, style and characteristics. Also, there are a lot of lack on their trolley such as the material used not suitable for modern use. For that, this product will be at advantage and can save up user energy. Other than that, this product functioned as a helper to user to hold objects orderly while transferring between different lands.

1.3 Objectives

The main objectives of this project are:

- a) To design the adjustable wide multifunctional trolley.
- b) To analysis and fabricate the extendable wide multifunctional trolley.

1.4 Scope of Study

The scope of study for this project are the load of object that this trolley can bear is 300kg(max), the height of 70cm, the height can be adjust according to user height and process that will be used for this project is welding, drilling, cutting, grinding and bending.