

UNIVERSITI TEKNOLOGI MARA

**DEVELOPMENT OF AN
ADJUSTABLE-MOTORIZED
WHEELBARROW**

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ABSTRACT

The evolution of wheelbarrow is evolving rapidly than a few centuries before. However, the evolution is not too drastic nowadays because of the demand in high tech wheelbarrow is not as high as the demand in other technology but there are still some companies take this opportunity to create a wheelbarrow supported with modern technology like motor, engine and so on. However, not everyone can afford to buy the wheelbarrow because of its high price. So, to increase the total users for high tech wheelbarrow, the final year project has been done. Final Year Project (FYP1) is an adjustment and improvement of the product that already exist. The concept design and fabrication have to be done. The final product should be able to work functionally to show that this FYP project is a success.

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Wheelbarrow is one of equipment that very useful for human to carry thing in a short destination. Many people use wheelbarrow like farmer, construction worker and even some family has at least one wheelbarrow at their house [1]. Wheelbarrow has eased the burden for human in lifting heavy load because of their design that can bring a lot of things in one destination. Maybe many of us thing that wheelbarrow is a new technology created by human but actually they are one of the old technologies has been made.

The wheelbarrow has been used for centuries to help people to bring large or heavy loads from one destination to other destination [2]. We can define them as an open container with handle and tire. As research done by archaeology, they believe that the earliest wheelbarrow is from second century Han Dynasty. The design of one-wheel cart which is found in Emperor Hui's tomb mural and brick tomb reliefs [3]. As we know, the main components for the wheelbarrow are tire, strong iron of frame, and metal container. At the frame, there is a pair of leg that function to stabilize the wheelbarrow. The container is used for filling the loads. Standard size for container is 25.5-inch width and 58.75-inch length [4].

This technology is used until now without too much improvement. Just the design and type of material are being improved from time to time. However, people start to face problem with wheelbarrow such as suffer from back pain, the wheelbarrow durability is low and so on. This problem surely will make people become uncomfortable. From all this problem found, I done some research and analysis to make a wheelbarrow that has been improve in durability and design so it can reduce user's backpain.