UNIVERSITI TEKNOLOGI MARA

FABRICATION OF A PROTOTYPE MINI BUCKET EXCAVATOR

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ABSTRACT

Agriculture is an activity practiced all over the world and from the starting of human civilization. Farming allows people to produce their own food supplies and some practice it at a larger scale for the purpose of selling it to others[4]. Nonetheless, some have intentions of farming crops on their own land and for their own needs only. As of these days, farming crops could have some complications as there are factors that restrict individuals from doing so[5][6]. For instance, time, available land, physical capability, affordability, and knowledge. By the invention of the Mini Bucket Excavator, it could eliminate some of the factors such as time, physical capability and affordability [7]. With this, agriculture around the world could be practiced individually and potentially lead to many benefits towards the individual, community and possibly to the world [8].

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CHAPTER ONE
INTRODUCTION

1.1 Background of Study

Agriculture in the most simple term means raising crops and rearing animals to produce food, traditional medicine, and many other products in order to sustain and improve human life. Without a doubt, agriculture is a fundamental part of human civilization for decades and has improved just as technologies have. Today, agriculture is central to global food security and the livelihoods of everyone in the world and technology involvement has improved it exponentially.

Every country has their own scope of farming and breeding due to difference in climate and weather and fortunately Malaysia has favourable climate conditions. This leads to robust agricultural practices which provides a major income to the country. Crops such as rice, coconuts and palm oil are few of Malaysia's most harvested crops for exports and local use.

On the other hand, technology that are available has improved agricultural activities in numerous ways such as increasing efficiency, productivity and quality of products. For instance, drones equipped with pesticides sprayer to protect plantations and tractors capable of planting, tilling and more.

Unfortunately, such technologies are only created for agricultural activities on a large scale. Which leads to little to none technology advancements on a small-scale such as farming at houses or small farms. Thus, leading to the project Mini Bucket Excavator which allows farming at small-scales to be improvised in multiple aspects. With hopes that this machine can help every individuals with interest for agricultural practices. For example, farming could have been restricted for people with older ages usually due to health complications or free time. With the existence of the Mini Bucket Excavator, it lessens both time consumption and risk of injuries.