UNIVERSITI TEKNOLOGI MARA

[DESIGN, ANALYSIS AND FABRICATION OF AUTOMATIC LAWNMOWER]

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ABSTRACT

A lawnmower is a machine that consist of one or more revolving blades to cut a grass surface to an even slick height. It is not a new invention; it has been found dated back from the 1830. However, there have been further improvements since the first innovation and the earliest is that the manual lawnmower has change into fully automatic. Due to the large size that leads into many difficulties, this project is to fabricate an automatic lawnmower machine that is compact and consume less energy. This lawnmower is powered by three DC motor as it gives more efficiency and make better use of the input energy. Not to mention, the body frame for this lawnmower is made of light material that helps in the portability, and its automatic reduce the human intervention that if has, it can lead to serious injury. This eco-friendly lawnmower machine will benefit all classes of users at an affordable price.

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CHAPTER ONE
INTRODUCTION

1.1 Background of Study

A lawn mower (also known as a mower, grass cutter, or lawnmower) is a machine that cuts an area of grass to a consistent height using one or more revolving blades. The height of the grass cut may be predetermined by the mower's construction, but it is usually changeable by the operator, often by a single master lever or a lever or nut and bolt on each of the machine's wheels. The blades can be operated by hand, with the wheels mechanically attached to the cutting blades so that as the mower is pushed forward, the blades spin, or the equipment can be powered by a battery or plug-in electric motor. However, user safety is frequently a concern with these machines because to the requirement for human interaction, as well as the size of the machine, which affects production costs and market pricing. As a result, this project will design, analyze, and build a smaller and more compact lawn mower to guarantee that no human interaction is required when managing this redesigned lawn mower, ensuring the user's safety [1].