UNIVERSITI TEKNOLOGI MARA

DESIGN, ANALYSIS AND FABRICATION OF CARPET CLEANER.

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ABSTRACT

In today's world, everyone in the family is preoccupied with their jobs, and they do not have time to clean the house properly. A dirty carpet can also cause a variety of health problems. It can be a huge source of concern for those who live in the house, particularly if someone in the family suffers from allergies and asthma. Next, any cleaning machine purchased on the open market is extremely costly. It might be quite costly for some people. Because of this, a carpet cleaner device is fabricated to help to clean and sweep the carpet. This is accomplished by simply pressing a switch of the controller and let the device does the work. This also cuts down the labor used for cleaning the carpet. This is the scenario that prompted the creation and development of an autonomous carpet cleaner that uses a controller to handle the cleaning work. With the use of mobile Bluetooth, this device may be operated manually. The project's main goal is to make it affordable and appropriate for the community and homeowners. The design of the device begins with the creation of a simple and effective chassis, which is a critical component using the Solid works software because it must support the entire weight of the device. In addition, the components will be assembled, and the device will be tested and fabricated. The primary goal of this project is to create a device that can effectively dust, and spot clean a particular room's carpet.

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CHAPTER ONE
INTRODUCTION

1.1   Background of Study

People are increasingly living in smaller homes, prompting the usage of compact and volume-efficient living solutions. Living in small spaces is becoming more common because of the high real estate prices in the metropolitan area, forcing people to live in cramped quarters. Another reason for the small living trend is that people prefer to live in efficient homes with less area to clean, fix, and maintain. As a result, the trend may pave the way for smart and compact home solutions in the future. People also use a lot of small furniture in their houses like sofa, closet, shelf, and carpet. So, they do not have to clean a lot of space and at the same time they can save their time and energy.

A carpet cleaner, as we know it now, is a machine that can clean both deep and intermediate carpets, as well as remove stains from fabrics. Carpet cleaners come with a variety of sound, efficiency, and range options. [5]. Carpet cleaners are now designed to remove dust and dirt, but today's consumers expect more from their household appliances, resulting in a discrepancy between how they are designed and how they are used.

1.2   Problem Statement

A carpet may provide beauty, comfort, and warmth to a room. A decent carpet is a costly investment. So, we must take all reasonable steps to guarantee that the carpet we purchased lasts as long as feasible. The purpose of this carpet cleaner is to assist homeowners in cleaning their carpet daily to ensure a longer lifespan of their carpet. The carpet fibers begin to deteriorate sooner when dandruff, hair, and other particles from the pets concentrate inside the fibers. Therefore, these respiratory irritants infiltrate our carpet daily, stressing the significance of frequent cleaning.

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