

**UNIVERSITI TEKNOLOGI MARA**

**DESIGN AND FABRICATION OF  
CEILING FAN CLEANER**

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## **ABSTRACT**

In this study, a ceiling fan cleaner will be designed and fabricated to ease the cleaning work of fans at either commercial buildings, industrial buildings, or houses. It is because the design of this product is designed to be user friendly. It is also easy to handle and there is no need to clean the dust that falls from the fan. This is because there is dust container at the cleaner. So, the dust that has been wiped will fall straight to the container. Thus, there is no need to clean up the mess after the fan cleaning work.

In addition, the students who are staying either in the hostel or renting any house outside the campus can also use this product to make their cleaning work easier in their stay place. Thus, they do not need to worry about cleaning the ceiling fan.

The purpose of ceiling fan cleaner also can be extended to a certain length by using power screw mechanism. It is to overcome the risk of falling from ladder when they want to clean the ceiling fan by using the default way for example by using cloth, sponge, or normal ceiling fan wiper.

Finally, this project is expected to reduce the work and time for the ceiling fan cleaning process. This project can also reduce the amount of work that needs to be done. The user will not need to do multiple work to complete the ceiling fan cleaning process. The user will not need to climb high stepladder that can risk the user of falling to the ground. Moreover, cleaning and collecting dust task can be combined to one work only.

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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of Study**

The research on certain aspects of engineering has been thoroughly done by the study about the mechanical engineering knowledge and applied to this project to help it function well. It uses the concept of power screw in which this concept allows the product to perform a very helpful ability which it can be extended to a certain length [20]. It really helps the cleaning process to be done by overcoming the risk of climbing a high ladder to clean the ceiling fan that is unreachable for a normal human height.

The main target for this project is to overcome two challenges in cleaning the ceiling fan. The most challenging part is that normally people who want to clean up the ceiling fan will need to climb a portable ladder to clean the ceiling fan because normally ceiling fan is mounted to the ceiling which is far higher than normal human height. The second challenging part that this project will overcome is that the dust that falls from the fan will not need to be clean after the fan cleaning process is done. This is because there is a dust container mounted to the product which allows it to catch the dust right away after the fan blade has been wiped.

The concept of power screw used in this project [20] is same as the concept of power screw used in lipstick. The length can be extended just by rotating the bottom of the product. Thus, this is the concept used to ease the user in adjusting the length of the product.