UNIVERSITI TEKNOLOGI MARA
Faculty of Mechanical Engineering

**UiTM Cawangan Johor Campus Pasir Gudang**
*MEC332 Mechanical Engineering Design*
*Final report and video presentation submission form*

**Submission form**: Final report and video presentation
**Due date:** Week 14

## Final year project detail

| Group/Team | Final Year Project Title | Submission Date |
|---|---|---|
| J4EM1105A/4 | EASY CLEANING BROOM | 21/01/2021 |
| **Supervisor** | SIR NOOR HAFIZ NOORDIN | |

**Team Member**

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**Instruction for submission**

1. Please **upload your final report and video presentation** for evaluation to google drive.
   **The link will be provided by MEC332's lecturer*

2. Please **copy link of your group folder and paste in the table below** before submitting this form to your supervisor

3. Supervisor will **check the contain of the folder and sign the submission from** as a prove he/she received the final report and video presentation

**Google drive link for final report and video presentation**

| Final report and video presentation (Google drive link) |
|---|
| https://drive.google.com/drive/folders/1UpsmN2qvPHogOBqELcIPkNHnUdbgWFov?usp=sharing |

I confirm that I already received the materials as in link provided and the link can be assessed

***Supervisor's signature:*** ***Date:*** 21/01/2021

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## 1.0 INTRODUCTION

Cleaning is a daily basis that is very important in every household. When it comes to cleaning, a lot of people would rant on it, taking it as a burden but it is a necessary part of daily life that should be done in order to keep the living environment remain clean, organized free from bad germs thereby promoting good health to the people surrounding. (Deshpande, 2018) Sayee Deshpande, a psychologist stated that cleaning could help you to have the sense of responsibility and can be a part of preparation for employment. Is it because, doing chores will basically make people learn how to carry out tasks and get them done within the time given. Hence, easy cleaning is created to ease people's work in doing chores. This project is carried in order to help people do their daily house chores without feeling burdened by it. This projectalso targeted bottom and middle classes people to afford cleaning equipment that is veryconvenient and can be used in a long period of time. Since this product is focusing on cleaning scope, of course it is open to every housewives of house husbands, bachelors and also students who are currently living away from their family. This project is expected to help people reduce their time spending on doing chores so they can focus more on their daily basis.

# 8.0 CONCLUSION AND RECOMMENDATION

Conclusion is described as the end or finish or an event, or closure. It summarizes the key points of all the discussion and critical features or other relevant things. Through the conclusion, the whole content of the report or results is interpreted, and the judgement is made. However, recommendations mean to follow the conclusions and opinions made from the results of the report. (Steiner-Williams, 2016)

## 8.1 CONCLUSION

In conclusion, the final year project of innovating a simple broom and turning it into a mechanical broom is a success. A lot of research has been made to give the idea on how toimprove a ready-made product. Yet, it is a fun process, and a lot of knowledge is gained and the experience in using software like Solidwork is improved. The main thing of this final year project is for students to be able to generate ideas on how to create or innovate acertain product.

This project focuses on creating a product with mechanical elements in it. The easy cleaning broom that is created is the innovation of a simple broom. From the broom, the improvement is made by adding some elements that can make users' life so much easier when using the products. Apart from that, the durability for the products is also considered to make sure the products last long. Hence, some calculation on the products is made. For example, the maximum force of the handle is calculated to make sure human force does not reach the maximum limitation. Other than that, the critical loads on each part and joints are also calculated to make sure the product does not get broken easily unlike the normal broom. The choice of materials also plays a big role in the durability of the product. Great raw material with high durability but low price will always be the first thing to be considered to use in the product to reduce the production cost. Besides, the design of the product is also important to make sure it becomes the center of customers attention and can raise the market target in business. Thus, a new product called easy cleaning broom is innovated. Overall, the project taught the students to consider a lot of