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**JOHOR
INNOVATION
INVENTION
COMPETITION
AND
SYMPOSIUM
2023**



"Innovation Inspires a Society
to be Critical and Creative"

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**AHMAD KHUDZAIRI KHALID
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**Cawangan Johor
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**Editors-in-Chief: AHMAD KHUDZAIRI KHALID &
NUR INTAN SYAFINAZ AHMAD**

**Art & Cover Designer: DR. WAN MUNIRAH WAN MOHAMAD
& DR. NUR IDAYU ALIMON**

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Preface

In the name of Allah, the Almighty who gives us the enlightenment, the truth, the knowledge and with regards to Prophet Muhammad (peace be upon him) for guiding us to the straight path. We thank to Allah for giving us guidance and strength to write this e-book.

This e-book compiles the extended abstracts that submitted to Johor Innovation Invention Competition and Symposium 2023 (JIICaS2023), where JIICaS2023 is a virtual platform for all creative minds to share and present their invention and innovation. The extended abstracts are divided into two categories, which are Category A (Higher Educational Student/ Any Recognized Institutional Students in Malaysia) and Category B (Primary/ Secondary School Students / Special Education School Students in Johor). Each abstract gives a brief background on the innovation or project.

We hope that this e-book will help the readers to get to know the innovation done by the students from both categories and get some ideas to develop future innovation products.



DESIGN OF SEMI-AUTO FOLDING CLOTHES

ADI ASYRAF BIN MOHD ARIFF, AHMAD EKMAL BIN SHAARI, MOHAMAD DANIAL BIN NAZERI, HANIPAH BINTI GHAZALI

UiTM CAWANGAN TERENGGANU, KAMPUS BUKIT BESI, 23200, BUKIT BESI, DUNGUN, TERENGGANU

Corresponding author: adiasyrafariff03@gmail.com

ABSTRACT

This project which is Semi Auto Folding Clothes machine is for student especially at UiTM hostel who have problem in folding clothes that cause many issues. A folding clothes machine is a mechanical movement machine that consist of multiple part that can help user in folding any clothes and save the user time. Even though, this folding machine as a relatively expensive price, this machine is very much needed by users, especially for laundries and clothing factories and it's become the most important machine at the laundry shop. So, to help people who can't afford buy it, the semi auto folding clothes machine designed. Furthermore, the existing folding clothes machines has a relatively large size and weight and makes it unsuitable for use in hostels. The project focuses on establishing a way to assist users in folding clothes with the initiative to save time and using a semi auto movement. For the process that use are we design, drawing, drawing in Solidwork, material selection, estimated cost, fabrication, and testing. In a nutshell, the essence of this folding clothes's innovation is to maintain a positive relationship with household or professional users by helping them stay content at work and giving them something to look forward to each day. Lastly, for the expected result, this project may help the student in the folding clothes.

Keywords: AnakMadamHanipah, fyp1.

1.0 INTRODUCTION

The main objective of this project is to design the Semi-auto Folding Clothes Machine. This machine will help the hostel student who do not have time and interest in folding clothes especially for male students. This semi-auto machine can reduce time for the student in folding clothes and can avoid clothes from left messy and lying all over the place. It is because the student does not have to fold their clothes using hand anymore and just use this semi-auto folding clothes machine.

2.0 OBJECTIVE

To design a semi auto folding clothes machine that can help student.

3.0 DESCRIPTION OF INNOVATION/METHODOLOGY

1. Main Body/Frame

The main body or machine frame is providing to support the machine and protect the gear mech. It will make from wood which is one of durable material and make this machine more solid.

2. Folding Board

The folding board is one of the main parts of this machine and will have a direct attach with the gear mechanism. This part will divide into 3-fold, left, right and centre fold and will rotate alternately each in 180-degree turn.

3. Gearing Mechanism

The gearing mechanism is the main part of this folding machine which is without it the folding board will not moving. This gear mechanism consists of motor for 3 folding board, and it will move parallel to shaft rotation in 360 degrees turn.

4. Shaft and Handle

In this machine, shaft is the cylindrical part that connect to the motor mechanism and the purpose of shaft is to convert the spinning to the motor into the moving energy for folding board while the handle will connect to it

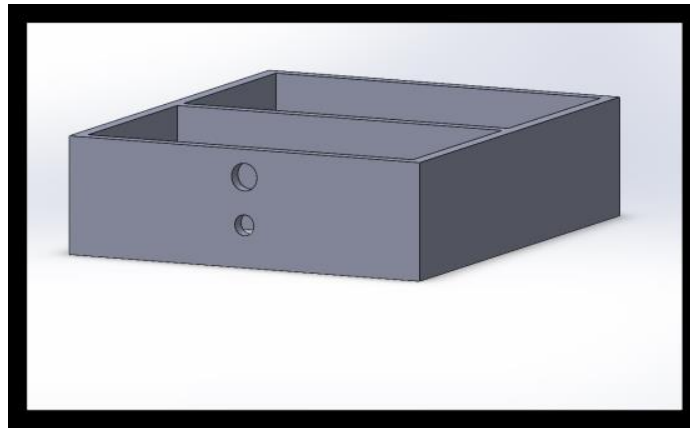


Figure 1: Frame Body

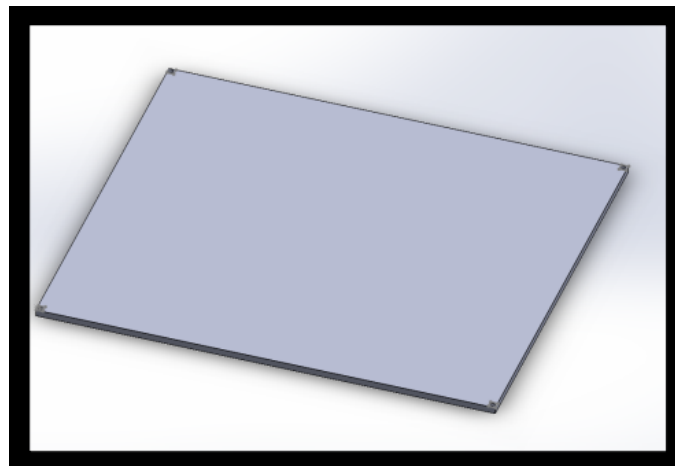


Figure 2: Frame Body Cover

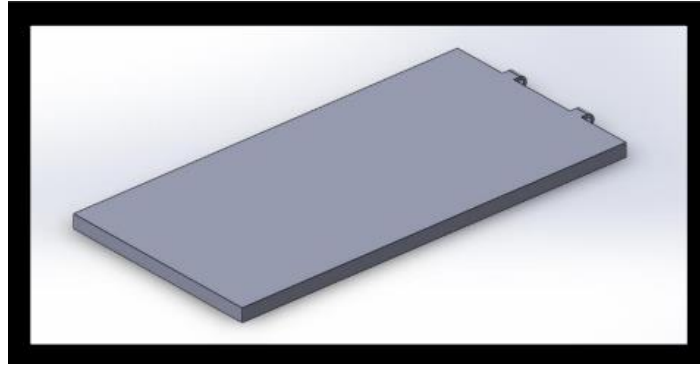


Figure 3: Upper Board

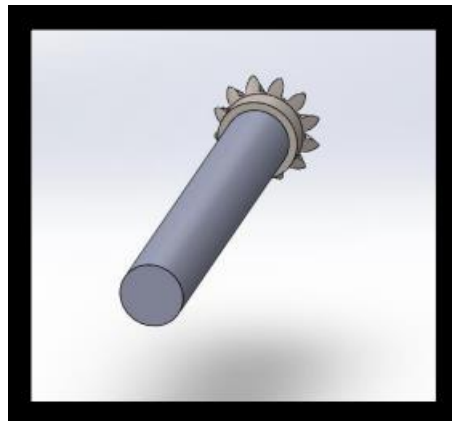


Figure 4: Shaft

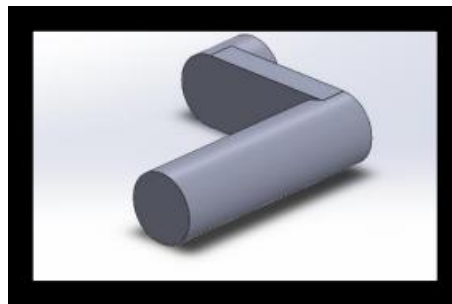


Figure 5: Main Holder

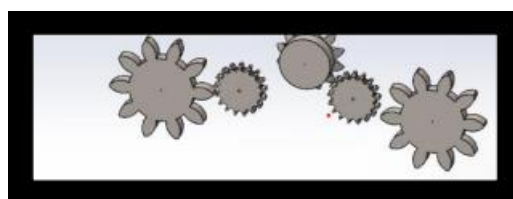


Figure 6: Gear

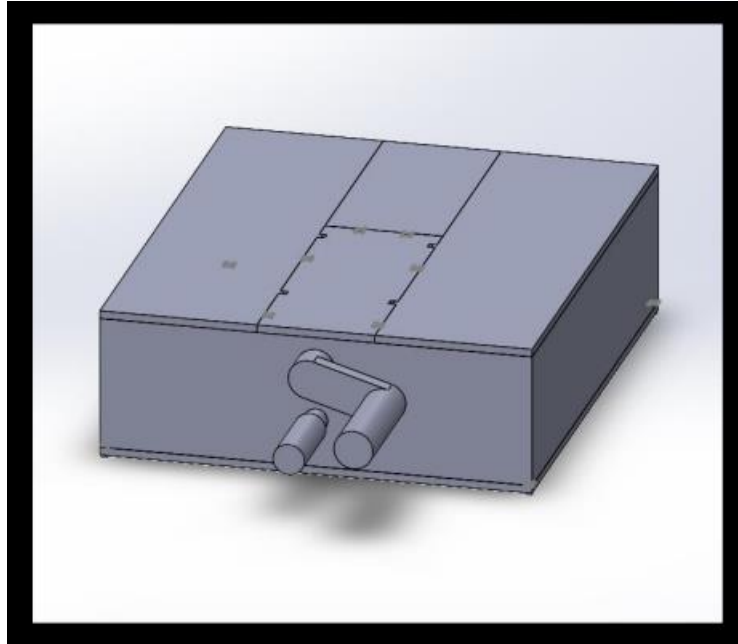


Figure 7: Assembly Drawing

4.0 ADVANTAGE/IMPACT/RESULTS/NOVELTY

1. Make a machine that can use for folding clothes in semi auto at the normal size clothes.
2. Student can afford to buy it, which is an affordable price offered.
3. User friendly, easy to use for all students.
4. To save student's time when use it that help them to fold clothes in semi auto.

5.0 CONCLUSION

In a nutshell, this semi-auto folding clothes machine is based on what types of clothing, what size of shirt, who want to use it and how long can use the machine, in other word, market demand. According to my observation, the target market in making this machine is the hostel student especially male student that have problem in folding clothes and does not have time to do it. So, it must be an affordable, long last, and easy to use folding clothes machine.