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THE LEAN

PEMANGKIN REVOLUSI INDUSTRI
PEMBUATAN NEGARA



FAKULTI KEJURUTERAAN PEMBUATAN

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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FOREWORD BY THE DEAN

FAKULTI KEJURUTERAAN PEMBUATAN
UNIVERSITI TEKNIKAL MALAYSIA MELAKA

Profesor Dr Zamberi Bin Jamaludin



It is my sincere pleasure to welcome you once again to THE LEAN, the 2021 edition of Issue 01. This edition focuses on the product of FKP students from Integrated Design Project (IDP) as well as FKP activities in 2020 and 2021. Alhamdulillah, FKP have done well in 2020 and 2021 despite the pandemic spreading through the world. We have embracing our new norm in daily life. Since then, the hybrid and online class have become our new approach. There are, however, challenges to be overcome.

As we all know THE LEAN is a bulletin of Faculty of Manufacturing Engineering publication focus on information on the involvement of faculty members in academic, activities, research, consulting, and local community. It is optimism to inspire development and benefits of knowledge to all especially students, local industry and foreign universities as well as the surrounding society. Hence, in this edition, we highlight the product that have been produced by FKP researchers from Integrated Design Project (IDP).

I would like to take this opportunity to congratulate the editorial board for bringing out this bulletin as per schedule, which in itself is an achievement considering the effort and time required. May all our students soar high in uncharted skies and bring glory to the world and their profession with the wings of education!

A special thanks also to all readers who spare their time to read and support The Lean.

NEW LOOK OF FKP



We are officially moving to our new building!!

The new FKP building has provided a complete, comfortable, and conducive facility for FKP's staffs and students, as well as other staffs and students in UTeM. The building is equipped with a lecture hall with 300 seating capacity and an auditorium with 150 seating capacity, 12 laboratories and 8 lecture room in order to enhance the student's academic activity. Beside the attractive and beautiful landscape that offer serene and idyllic view.

The completion of this new facilities has enabled all academic staff and students' to be placed under one roof. The activities and meeting can easily be done whilst engaging the interaction among students and staffs.



STUDENT'S ACTIVITIES

The faculty believes that any student involvement in UTeM positively affects student learning and development. Extracurricular activities provide a setting to become involved and interacted with other students, thus increasing learning and enhance growth. Every student is encouraged to join club, committee, or organization, attend and support programs and activities sponsored by student affairs, and equally as important, support programmes planned by fellow students and the student association.

In FKP, we have a society dedicated to all faculty students known as the Society of Manufacturing Engineers (SME). The society aims to enhance soft skills, especially leadership skills, among the students. The students are encouraged to join and become the SME members as well as participate in the programs or activities organized by SME. Faculty, as well as SME, have organized countless activities that pronounced to the students.



ABILITIES

| Logical & Analytical Thinking |
| Critical Thinking | Creative Thinking |



SKILLS

| Problem Solving | | Leadership | | Social |
| Emotional | | Communication | | Technology |



VALUES

| Social | | Ethical | | Recreational |

With the pandemic still on going, created unprecedented challenges to course delivery across the higher education world. Moving to online education with brilliant improvisation of new platforms has somehow solved problems of online learning.

However, this does not stop the activities that relate with the students empowering development. Since systems have moved to hybrid forms of delivery in which enhanced online activity is combined with managed face to face classes, which again has generated creative new approaches.

This was translated in the numerous activities that have been conducted by FKP in the midst of Covid 19 pandemic.

Thus, with all these programs, the students can polish their soft skills such as confidence, flexibility, honesty, and integrity, seeing things from different perspectives, optimism, and common sense even though they are having long distance learning. It is true that much of our intellectual development happens, to a great extent, in the classroom itself.

But, various other aspects of our personality such as emotional development and social skill development happen through co-curricular activities to a large extent. The key role and importance of co-curricular activities cannot be denied in holistic development.

PERTANDINGAN CAD UTeM
"UTeM MOVING FORWARD"

UTeM
UNIVERSITI TEKNIKAL MALAYSIA MELAKA

SEBARANG PERTANYAAN HUBUNGE:
AHS: +60 10-570 2850
SRAIFRIZ: +60 10-767 8372

8 APRIL 2021 (KHAMIS)
2 PETANG - 5 PETANG
MAKMAL AUTOCAD FKP

1ST RM50
2ND RM30
3RD RM15

- TERBUKA KEPADA SEMUA PELAJAR UTEM
- MENGUNAKAN APLIKASI AUTOCAD
- LUKISAN MESTILAH HASIL PELAJAR SENDIRI

PENYERTAAN ADALAH TERHAD!
QR CODE PERISTIWA

UTeM SME TUAH

BUSINESS TALK
"ALWAYS DELIVER MORE THAN EXPECTED"

UTeM
UNIVERSITI TEKNIKAL MALAYSIA MELAKA

7 APRIL 2021, WEDNESDAY | 9:00 AM - 12:30 PM

Tempat: Dewan Kuliah FKP dan Facebook Live
Speaker by: En. ROSMIZAN BIN ALI
(PEGAUWI PERKHIDMATAN PENDIDIKAN)

QR CODE

UTeM SME TUAH

PERTANDINGAN PENYAMPAIAN BERITA

UTeM
UNIVERSITI TEKNIKAL MALAYSIA MELAKA

TAKEN TUTUP PENYERTAAN
5 APRIL 2021

TERBUKA KEPADA SEMUA PELAJAR UTeM |

- Teks ucapan disediakan.
- Peserta perlu menghasilkan video mengikut kreativiti masing-masing.

SEBARANG PERTANYAAN, HUBUNGE:
AMIN: +60 13 519 7585
FARAH: +60 17 357 6856

IBRANG PENYERTAAN, SYARAT DAN TEKS ROLAH OFFICER/DIV MELALUI IMBAS KOD QR

QR CODE

UTeM SME TUAH

CV Development via Digital LinkedIn Portfolio and Image Building

UTeM
UNIVERSITI TEKNIKAL MALAYSIA MELAKA

7 APRIL 2021 (2.00PM-5.00PM)
DEWAN KULIAH FAKULTI KEJURUTERAAN PEMBUATAN

PROGRAM:
-BOTH GAMES
-CV DEVELOPMENT
-IMAGE BUILDING

Speaker CV Development:
PM DR AZMA PUTRA
Certified Apple Educator

Speaker Image Building:
EN MOHD MOHSHEN BIN JAAMAT

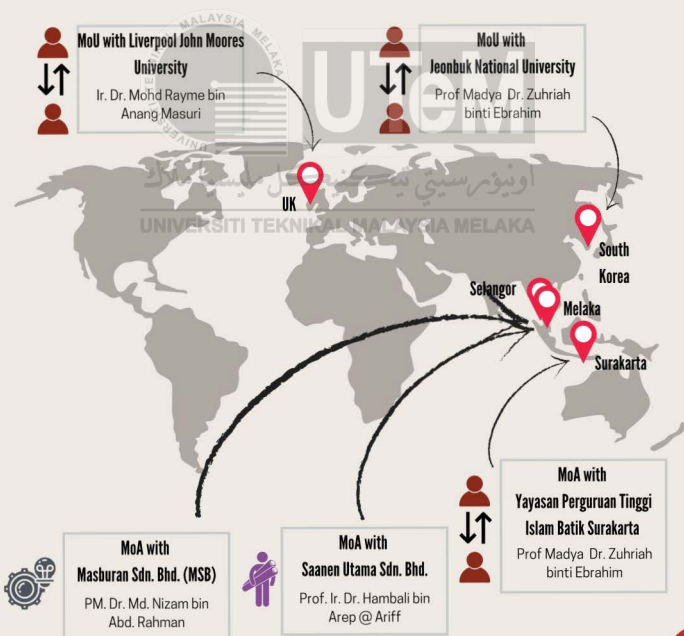
Speaker Digital Linked-In Port Folio:
Dr Zakiah Abd Halim

Sebarang pertanyaan, sila hubungi:
01131245198 (Anusha)

UTeM SME TUAH

FACULTY'S COLLABORATION

Memorandum of Understanding (MoU) and Memorandum of Agreement (MoA) with Faculty



STUDENTS' PROJECTS 2020-2021

Integrated Design Project 2020

JIG AND FIXTURE WITH ADJUSTABLE ANGLE
Drilling Machine

IPD 2020/2021 UTeM

PRODUCT DESCRIPTION

- A jig and fixture with the ability to perform different angles drilling function & hold and fix the workpiece in a static position without shaking due to the machining process.

INVENTIVENESS - FEATURES

- Contain 4 different angle holes.
- Hold work piece tightly.
- Can be rotate in 360°.

ADVANTAGES/UNIQUENESS

- Drill precision
- Rotating Base
- User Friendly
- Time Saving
- Long Lasting

PROBLEM STATEMENT

- Jig and Fixture in current market unable to perform angle holes.
- The user need to use extra tools to produce a single hole.
- Increase time consuming to produce a product.
- Decrease the production rate.

PRODUCT IMAGE

CONTACT US
Faculty of Manufacturing Engineering, UTeM, Hang Tuah Jaya, 76100 Durian Tunggal, Melaka, Malaysia
Phone: +606-270-2271 Fax: +606-270-1047

SANITIZER WHEELCHAIR EXCELLENT DEVICE 2020 (SWED 2020)

IPD 2020/2021 UTeM

PRODUCT DESCRIPTION

- Rotation movement converting the kinematic motion to the cleaning device.
- The cleaning brush and mat cleaner will remove the dirt and debris that attach to the surface of a wheelchair tires.

PROBLEM STATEMENT

- Wheelchair users difficult to cleaning the wheelchair tires by itself.
- Tires condition when entering the place of worship.

INVENTIVENESS - FEATURES

- The brush and mat cleaner accessories available to change.
- The device can be used on all types of wheelchairs.

ADVANTAGES / UNIQUENESS

- Easy Way To Use
The user able to do task independently without the need help from others.
- Reduce Operation Time
The device take a few minutes to complete cleaning operation.

CONTACT US
Faculty of Manufacturing Engineering, UTeM, Hang Tuah Jaya, 76100 Durian Tunggal, Melaka, Malaysia
Phone: +606-270-2271 Fax: +606-270-1047



PORTABLE SPECIMEN GRINDER & POLISHER

IPD 2020 2021 UTeM

Project description:

Innovative specimen grinding and polishing solution offering portability and ergonomic working posture for extended working period.

PROBLEM STATEMENT

- Causing ergonomics issues such as awkward posture.
- Limited number of machine in the Engineering Materials Laboratory.
- Heavy and immovable machine.

ADVANTAGES/ UNIQUENESS

- ERGONOMICS POSTURE**
Dual deck design to allow for height adjustability to match various height of users.
- EASILY MOVABLE**
Equipped with a set of 360° rotatable wheels.
- MULTIFUNCTION**
Support both grinding and polishing for specimen preparation.
- FLEXIBLE**
Adjustable speed allows for various type of material specimen preparation.
- UNIVERSAL SANDPAPER OR POLISHING PAD COMPATIBILITY**
Uses 8 inches sandpaper and polishing pad that can be commonly found in the market.

INVENTIVENESS - FEATURES

- Portable design
- Adjustable height
- Built-in water supply and draining system.

GROUP MEMBERS -

1. CHEUNG CHUN HEAN (2012120010)
2. CHEUNG KWAN HANG (2012120011)
3. MOHAMMAD RIYAN BIN NADIR (2012120012)
4. WARDEN KHAIRIYA ANIS SYAHMIR (2012120013)
5. MUHAMMAD RAFFIQ BIK ABDULHALIM (2012120015)

SUPERVISOR: DR ISA BIN HALIM

CONTACT US
Faculty of Manufacturing Engineering, UTeM, Hang Tuah Jaya, 76100 Durian Tunggal, Melaka, Malaysia
Phone: +606-270-2271 Fax: +606-270-1047 Email: uctem@utem.edu.my

FACULTY OF MANUFACTURING ENGINEERING
PALM OIL BUNCHES LOADER
IPD 2020 2021 UTeM

Project description:

Focusing on small industries, palm oil plantation to design a new tool that can help the worker during lifting process of palm oil bunches from loading area to lorry. This new tool is design to replace traditional tool used, loading spike that not ergonomic to worker, which can cause long term disease to them.

Problem statement

1. Efficiency and human labor depends heavily on the energy of workforce.
2. Limited human labor
3. Workers unknowingly exceed his body capabilities to lift palm oil bunches

Inventiveness

- Light in weight, portable
- easy to carry
- Flexible, able to rotate 360 degree in x-axis

Advantages

1. Less energy used
-Reduce 31.27% energy to lift palm oil bunches
2. Simple mechanism
Simple mechanism with the concept of 1st class lever
3. High usability and low maintenance
4. High work efficiency
-Able to grip palm oil bunch firmly with 2 loading spike mechanism
-Able to reach palm oil bunches from ground only 0.35m

CONTACT US
Faculty of Manufacturing Engineering, UTeM, Hang Tuah Jaya, 76100 Durian Tunggal, Melaka, Malaysia
Phone: +606-270-2271 Fax: +606-270-1047

STUDENTS' PROJECTS 2020-2021

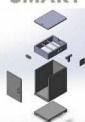
Integrated Design Project 2020



BENEFITS



SMART



DUSTBIN

- 01 The lid that control by the sensor could prevent the lid from uncovered that might attract pest
- 02 The sense to open lid could reduce the indirectly contact of users and reduce potential of the spread of bacterial
- 03 The carbon filter and UVC Light is design for more hygienic purpose
- 04 The compactor could compact the rubbish into smallest size and maximize the plastic bag capacity to reduce the plastic bag usage

A SMARTER WAY OF LIFE

AUTOMATED

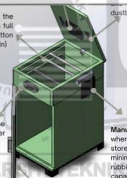
HYGIENIC

VOLUMINOUS

Carbon Filter remove surplus

Sealer can seal the plastic bag when it is full (by pressing the button installed on the dustbin)

Sensor able to sense the nearby object and trigger the dustbin lid to open



Manual Compactor where the compactor is store and use to minimize the size of rubbish to increase the capacity of plastic bag

Automated Opening Device rubbish bag remover. It after the plastic bag is



ADVANTAGES OF OUR CHILD SEAR ALERTING SYSTEM

It is lightweight. Portable since it comes in such a tiny package that can comfortably be transported. Friendly user and it can be used by anyone from any category of age. Comes with a detachable bottle holder so that it can provide a space to put bottle milk or somethings that is fit to sizes.

CHILD SEAR ALERTING SYSTEM



FACULTY OF MANUFACTURING ENGINEERING

PRODUCT DETAILS

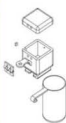
PRODUCT DESCRIPTION

The child seat alerting system is switched on once the baby sit on the child seat. As the temperature and sound sensor senses high temperature in car and crying sound from baby, GSM Module will send message to smartphone of parents for notify that their child is in a hot car.

PROBLEM STATEMENT

The death of a baby inside the car still happens on the news nowadays and most of this incident occurs due to the carelessness of their parents.

EXPLODED VIEW



FEATURES

It is used to alert parents who leave the child inside a car for long duration.

Hinges
Inkubation (Hooker)
Copper plate (Temperature Detector)



Housing (Lid & Base)
Circuit
Detachable Bottle Holder

CONTACT US

TIS. DR. MOHAMMAD KAMIL BIN SUEB
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UNIVERSITI TEKNIKAL MALAYSIA MELAKA,
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STUDENTS'
PROJECTS
2020-2021

Integrated
Design
Project
2021

EZ WHEELCHAIR KIT

PORTABLE MEAT CUTTER

STERILIZED STORAGE

PORTABLE CHICKEN CUTTING MACHINE

WORKSTATION BAG

OPTIMUM VERSATILE CANE

ADJUSTABLE SIZE CHAIR

SEASHORE RUBBISH PICKER

DRAIN CLEANER

LOAD ACTIVATED HYBRID WALKER

POLYBAG REMOVER

MOTORIZED WHEEL CHAIR ATTACHMENT

PORTABLE UV FACEMASK DISINFECTANT

MECHANICAL HOME ELEVATOR

ERGONOMIC TRANSPLANTER

AUTOMATIC HAND WASHING

MOBILE PHONE COOLING CASE

AUTOMATIC FRUIT PEELER

GO AND ONN

PHYSICAL DISTANCING MONITORING DEVICE

REUSABLE COOLANT FILTER SYSTEM

HYDRAULIC CLAMP

MULTIPURPOSE COCONUT TOOL

SOCIAL DISTANCING INDICATOR

FOOT DOOR OPENER

ADJUSTABLE CHAIR FOR SCHOOL CHILDREN IN MALAYSIA

SEASHORE RUBBISH PICKER

LEFT AND RIGHT HANDED TABLE CHAIR

EXPANDABLE DELIVERY BAG

MULTIPURPOSE PRAYER MAT

MULTIPURPOSE BROOM

AUTOMATIC HAND WASHING

PORTABLE AND WEARABLE BODY SUPPORT FOR PROLONGED STANDING TASK

UteM
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
JULY 2021

Introduction

1. Identify a problem in the present situation or your own life.
2. Find the cause or causes of the problem.
3. Brainstorm ideas to solve the problem.
4. Select the best idea to solve the problem.
5. Develop a plan to solve the problem.
6. Implement the plan.
7. Evaluate the results of the plan.

Problem and solution

1. Defining a problem is to determine the meaning of a situation.
2. It is a process of identifying the problem.
3. It is a process of identifying the problem.
4. It is a process of identifying the problem.

Designing a solution

1. Brainstorming ideas
2. Selecting the best idea
3. Developing a plan
4. Implementing the plan
5. Evaluating the results

Model of a solution

1. Brainstorming ideas
2. Selecting the best idea
3. Developing a plan
4. Implementing the plan
5. Evaluating the results

STUDENTS' PROJECTS 2020-2021



Integrated Design Project 2021

EZ WHEELCHAIR KIT

For Mechanical Engineering Student (Final Year) at UteM
Faculty of Manufacturing Engineering, Universiti Teknikal Malaysia Melaka, 76100 Durian Tunggal, Melaka, Malaysia

Sponsored by: UteM, KPT, UteM

PROJECT DESCRIPTION

The EZ wheelchair kit is designed for the disabled person who has a problem in walking or sitting on a wheelchair. It is a simple and easy-to-use wheelchair kit that can be used by anyone who has a problem in walking or sitting on a wheelchair.

PROBLEM STATEMENT

- The wheelchair is not easy to use.
- The wheelchair is not safe.
- The wheelchair is not comfortable.
- The wheelchair is not durable.

SOLUTIONS

- Add a motor to the wheelchair.
- Add a sensor to the wheelchair.
- Add a battery to the wheelchair.
- Add a controller to the wheelchair.

ADVANTAGES

- Can reduce the risk of falling.
- Can reduce the risk of injury.
- Can reduce the risk of infection.
- Can reduce the risk of discomfort.

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Faculty of Manufacturing Engineering

UteM
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Mobile Phone Cooling Case

Advantages of Our Mobile Phone Cooling Case

- Reduce the mobile phone temperature.
- Increase grip on phone case.
- Improve the protection of mobile phone.

CONTACT US

Supervisor:
DR. RAJIB ZAKI
M.Sc. Eng.

Chong Kian Hong
Amir Haziq bin Abdul Aziz
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UteM
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Faculty of Manufacturing Engineering

UteM
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
MULTIPURPOSE BRUSH

INTRODUCTION

1. The purpose of this project is to design a multipurpose brush that can be used for cleaning different surfaces.

OBJECTIVE

1. To design a multipurpose brush that can be used for cleaning different surfaces.

SCOPE

1. The scope of this project is to design a multipurpose brush that can be used for cleaning different surfaces.

DESIGN

1. The design of the brush is based on the requirements of the user.

CONCLUSION

1. The multipurpose brush is a simple and easy-to-use cleaning tool that can be used for cleaning different surfaces.

UteM
UNIVERSITI TEKNIKAL MALAYSIA MELAKA

UteM
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
EXPANDABLE DELIVERY BAG

INTRODUCTION

1. The purpose of this project is to design an expandable delivery bag that can be used for carrying different items.

OBJECTIVE

1. To design an expandable delivery bag that can be used for carrying different items.

SCOPE

1. The scope of this project is to design an expandable delivery bag that can be used for carrying different items.

DESIGN

1. The design of the bag is based on the requirements of the user.

CONCLUSION

1. The expandable delivery bag is a simple and easy-to-use carrying tool that can be used for carrying different items.

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Faculty of Manufacturing Engineering

UteM
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PORTABLE UV LIGHT FACEMASK DISINFECTANT

INTRODUCTION

1. The purpose of this project is to design a portable UV light facemask disinfectant that can be used for disinfecting facemasks.

OBJECTIVE

1. To design a portable UV light facemask disinfectant that can be used for disinfecting facemasks.

SCOPE

1. The scope of this project is to design a portable UV light facemask disinfectant that can be used for disinfecting facemasks.

DESIGN

1. The design of the disinfectant is based on the requirements of the user.

CONCLUSION

1. The portable UV light facemask disinfectant is a simple and easy-to-use disinfecting tool that can be used for disinfecting facemasks.

UteM
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
Faculty of Manufacturing Engineering

UTeM PORTABLE MEAT CUTTER AND SLICER

Motivation

During the Covid-19, most dishes consumed are self-prepared, mainly after the process of disinfection, the meat is then cooked to be safe and eaten at home. However, this process is not always easy and during the process people who are sick due to the cutting and slicing, but their equipment are quite expensive to use and take long time for them to finish cutting the meat. The cuts are very thin required a lot of energy using a lot of force with uncomfortable and harder to use than the existing meat slicer and slicer grinders in which most machines, they are used for professional meat slicer and slicer grinders are not portable and not cheap and heavy. This is the reason why our team are not completely the design machine and equipment to be the meat and slicer.

Problem Statement

1. The existing meat slicer grinders are not always and taking time.
2. The existing meat slicer grinders are not portable and not cheap.
3. The existing meat slicer grinders are not easy to use.
4. The existing meat slicer grinders are not safe.
5. The existing meat slicer grinders are not healthy.
6. The existing meat slicer grinders are not clean.
7. The existing meat slicer grinders are not easy to clean.
8. The existing meat slicer grinders are not easy to store.
9. The existing meat slicer grinders are not easy to transport.
10. The existing meat slicer grinders are not easy to use.

MEAT CUTTER AND SLICER THAT ARE AVAILABLE IN THE MARKET

Objective

1. To design a portable meat slicer grinders that are always and taking time.
2. To design a portable meat slicer grinders that are portable and not cheap.
3. To design a portable meat slicer grinders that are easy to use.
4. To design a portable meat slicer grinders that are safe.
5. To design a portable meat slicer grinders that are healthy.
6. To design a portable meat slicer grinders that are clean.
7. To design a portable meat slicer grinders that are easy to clean.
8. To design a portable meat slicer grinders that are easy to store.
9. To design a portable meat slicer grinders that are easy to transport.
10. To design a portable meat slicer grinders that are easy to use.

Methodology

1. Determine the scope of the design of the product.
2. Research and analyze the product.
3. Design and develop the product.
4. Test and evaluate the product.
5. Present and defend the product.

Data & Results

IMPACT OF THE PRODUCT

1. The product is portable and always and taking time.
2. The product is portable and not cheap.
3. The product is easy to use.
4. The product is safe.
5. The product is healthy.
6. The product is clean.
7. The product is easy to clean.
8. The product is easy to store.
9. The product is easy to transport.
10. The product is easy to use.

Future works

1. To improve the design of the product.
2. To improve the quality of the product.
3. To improve the quantity of the product especially the quantity of the product.
4. To improve the quantity of the product especially the quantity of the product.
5. To improve the quantity of the product especially the quantity of the product.
6. To improve the quantity of the product especially the quantity of the product.
7. To improve the quantity of the product especially the quantity of the product.
8. To improve the quantity of the product especially the quantity of the product.
9. To improve the quantity of the product especially the quantity of the product.
10. To improve the quantity of the product especially the quantity of the product.

THE ANALYSIS OF THE PORTABLE MEAT CUTTER AND SLICER

STUDENTS' PROJECTS 2020-2021



Integrated Design Project 2021

PORTABLE CHICKEN CUTTING MACHINE

UTeM FKP

INTRODUCTION

The chicken is a common domestic animal which provides an abundant and cutting time. The chicken is a common domestic animal which provides an abundant and cutting time. The chicken is a common domestic animal which provides an abundant and cutting time.

PROBLEM STATEMENT

1. The existing chicken cutting machines are not always and taking time.
2. The existing chicken cutting machines are not portable and not cheap.
3. The existing chicken cutting machines are not easy to use.
4. The existing chicken cutting machines are not safe.
5. The existing chicken cutting machines are not healthy.
6. The existing chicken cutting machines are not clean.
7. The existing chicken cutting machines are not easy to clean.
8. The existing chicken cutting machines are not easy to store.
9. The existing chicken cutting machines are not easy to transport.
10. The existing chicken cutting machines are not easy to use.

METHODOLOGY

1. Determine the scope of the design of the product.
2. Research and analyze the product.
3. Design and develop the product.
4. Test and evaluate the product.
5. Present and defend the product.

PRODUCT FUNCTIONALITY

PRICE OF PRODUCT : RM 150
PROFIT PER 100 PRODUCT BOLD : RM 3000

ADJUSTABLE SIZE CHAIR FOR SCHOOL CHILDREN IN MALAYSIA

BREAKING NEWS GROUP 24 PRESENTS

With a seat area and chair height that can be increased!!

This is to help people with bigger size body to sit comfortably. No more wiggling around and feeling uncomfortable!

"STERILE STORAGE"

UTeM DESIGN PROJECT

INTRODUCTION

The sterile storage is a device that is used to store and protect the sterile products. The sterile storage is a device that is used to store and protect the sterile products. The sterile storage is a device that is used to store and protect the sterile products.

PROBLEM STATEMENT

1. The existing sterile storage devices are not always and taking time.
2. The existing sterile storage devices are not portable and not cheap.
3. The existing sterile storage devices are not easy to use.
4. The existing sterile storage devices are not safe.
5. The existing sterile storage devices are not healthy.
6. The existing sterile storage devices are not clean.
7. The existing sterile storage devices are not easy to clean.
8. The existing sterile storage devices are not easy to store.
9. The existing sterile storage devices are not easy to transport.
10. The existing sterile storage devices are not easy to use.

METHODOLOGY

1. Determine the scope of the design of the product.
2. Research and analyze the product.
3. Design and develop the product.
4. Test and evaluate the product.
5. Present and defend the product.

PRODUCT FUNCTIONALITY

PRICE OF PRODUCT : RM 150
PROFIT PER 100 PRODUCT BOLD : RM 3000

AUTOMATIC HAND WASHING

UTeM

INTRODUCTION

The automatic hand washing is a device that is used to wash the hands automatically. The automatic hand washing is a device that is used to wash the hands automatically. The automatic hand washing is a device that is used to wash the hands automatically.

PROBLEM STATEMENT

1. The existing automatic hand washing devices are not always and taking time.
2. The existing automatic hand washing devices are not portable and not cheap.
3. The existing automatic hand washing devices are not easy to use.
4. The existing automatic hand washing devices are not safe.
5. The existing automatic hand washing devices are not healthy.
6. The existing automatic hand washing devices are not clean.
7. The existing automatic hand washing devices are not easy to clean.
8. The existing automatic hand washing devices are not easy to store.
9. The existing automatic hand washing devices are not easy to transport.
10. The existing automatic hand washing devices are not easy to use.

METHODOLOGY

1. Determine the scope of the design of the product.
2. Research and analyze the product.
3. Design and develop the product.
4. Test and evaluate the product.
5. Present and defend the product.

PRODUCT FUNCTIONALITY

PRICE OF PRODUCT : RM 150
PROFIT PER 100 PRODUCT BOLD : RM 3000

PHYSICAL DISTANCING MONITORING DEVICE

UTeM

A device that assess individuals in adhering to the 1 meter physical separation when leaving lines of public.

ADVANTAGES

- ✓ **Ease Of Maintenance**
Do not require constant service, can be used without a person.
- ✓ **Convenience Design**
A simple of design, maintenance yet makes high functionality.
- ✓ **Lightweight**
Material and selection of materials to reduce the weight.
- ✓ **Ergonomic & Portable**
Adjusting height on view of individual.
- ✓ **High Durability**
High resistance and wear-resistant, and official is disintegrated.

PROBLEM STATEMENT

1. The 1 meter lines must be constantly monitored.
2. A 1 meter line is a device that is used to monitor the 1 meter lines.
3. A 1 meter line is a device that is used to monitor the 1 meter lines.
4. A 1 meter line is a device that is used to monitor the 1 meter lines.
5. A 1 meter line is a device that is used to monitor the 1 meter lines.
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7. A 1 meter line is a device that is used to monitor the 1 meter lines.
8. A 1 meter line is a device that is used to monitor the 1 meter lines.
9. A 1 meter line is a device that is used to monitor the 1 meter lines.
10. A 1 meter line is a device that is used to monitor the 1 meter lines.

FEATURES

- Operated within a 1 meter distance of energy, portable and can be easily stored and disintegrated.
- Support with high light and feature to guide the handspaced person.
- High accuracy sensor and works well without human accountability.

Group Members:

- 1. Muhammad Bilal Bin Zulfari: 8051181247
- 2. Nurfarizal Bin Amirul Hakim: 8051181862
- 3. Farha Bin Abdul Rauf: 8051181802
- 4. Nurhuda Bin Afiqah: 8051181812
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Supervisor: Dr. Saiful Bin Abdulkadir

LEFT AND RIGHT HANDED TABLE CHAIR

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MULTI-PURPOSE PRAYER MAT

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INTELLIGENCE IS THE ABILITY TO ADAPT TO CHANGE.



UTeM

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

Stephen Hawking

DANGER

Do Not Use Compressed Air To Blow Dust Or Dirt Off Your Cloth

Is it a good idea to use compressed air to blow dirt off clothing or work surfaces?

No. You should not use compressed air to clean off clothing or any part of your body. Although many people know using compressed air to clean debris or clothes can be hazardous, it is still used because of old habits and the easy availability of compressed air in many workplaces. However, cleaning objects, machinery, bench tops, clothing and other things with compressed air is dangerous. Injuries can be caused by the air jet and by particles made airborne (re-enter the air). Many workplace injuries occur due to the misuse of compressed air.

What should I use instead of compressed air for cleaning purposes?

Use wet sweeping techniques, sweeping compounds, or vacuum cleaners equipped with special filters or other devices to prevent dust from being recirculated into the air.

What are the hazards of using compressed air?

First, compressed air is extremely forceful. Depending on its pressure, compressed air can dislodge particles. These particles are a danger since they can enter your eyes or abrade the skin. The pressure used to remove the particles from machines and surfaces is also strong enough to blow the filings, shavings, chips and particles of metal into the eyes, ears or skin of people. Compressed air can enter the body where the skin is not present (i.e., ear, nose, rectum or any scratch or puncture in the skin, however small) and can cause damage. There have also been reports of hearing damage caused by the pressure of compressed air and by its sound.

Second, the compressed air itself is also a serious hazard. On rare occasions, some of the compressed air can enter the blood stream through a break in the skin or a body opening. An air bubble in the blood stream is known medically as an embolism, a dangerous medical condition in which a blood vessel is blocked, in this case, by an air bubble. An embolism of an artery can cause coma, paralysis or death depending upon its size, duration and location. While air embolisms are usually associated with incorrect diving procedures, they are possible with compressed air due to high pressures. While this seems improbable, the consequences of even a small quantity of air or other gas in the blood can quickly be fatal.

Third, using air to clean forces the dirt and dust particles into the air, making these contaminants airborne and creating a respiratory hazard.

Unfortunately, horseplay has been a cause of some serious workplace accidents caused by individuals not aware of the hazards of compressed air, or proper work procedures.

So be smart and use it correctly, you aren't MacGyver!



Si manis pengendali dron pertanian

Fairul Asmini Mohd Pilus
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"Kaedah ini mampu mengurangkan kebergantungan tenaga kerja malah terbukti membantu petani menjimatkan kos dan masa, " katanya ketika ditemui Harian Metro di Sungai Besar, baru-baru ini.

Mengimbau sejarah awal pembabitannya dalam bidang berkenaan, Nur Syazwani berkata, semasanya bermula selepas dia berhenti kerja akhir September lalu dan pulang ke kampung untuk menjaga bapanya yang ketika itu kurang sihat.

Kata penganjur Ijazah Sarjana Muda Kejuruteraan Pembuatan, Universiti Teknikal Malaysia Melaka (UTeM) itu, bapanya, Mohamed Rizal Mohd. Tayab yang juga pengendali kursus dan latihan dron pertanian kemudian mengajarkannya untuk menceburi bidang berkenaan memandangkan dia memiliki latar belakang dalam bidang kejuruteraan.

"Namun, luarnya bukan mudah kerana saya perlu mengikuti pelbagai kursus teknikal (kendalian My Drone Services) dan Kursus Asas Pengendali Dron serta Kursus Agriculture Drone Pilot (ADP) berikutan cara pengendalian, pemasangan, penggunaan Sistem Penentu Kedudukan Global (GPS) dan cara menerbangkan dron dengan selamat anjuran Kolej Komuniti Sabak Bernam (KKSBS).

SUCI-URIS: Kit Berhadass Kecil Patuh Syariah Pertama Di Dunia

Hanya RM55 SATU SET

Selaku Diskaun!

Kerap Berhadass Kecil

Jemaah Haji & Umrah

Warga Emas & OKU

Kesesakan Lalu Lintas

Ke Negara Yang Tiada Kemudahan Air di Tandas

Maklumat lanjut pengguna

Mat buang air kecil patuh syariah.

Keterangan lanjut

Pengembangan pihak JAKMA 2018

Kualiti Terjamin - SIRIM 2017

Prof. Dr. Ibrahim Bin Anwar-Arif - 0186898667
 Prof. Dr. Mohd Shaker Bin Saiboh - 0122773548
 P.M. Dr. Effendi Bin Mohamad - 0122743208
 P.M. Dr. Ibrahim Binti Arif - 0186300982
 Dr. Khairul Fadhli Bin Roslan - 01186992526

Tahniah!!

atas pelaksanaan sebagai
Panel Penilai Kompeten
METERAI HIJAU (GREEN SEAL)
 Kerajaan Negeri Melaka

TS Dr AI Amin bin Mohamed Sultan
 Fakulti Kejuruteraan Pembuatan
 Universiti Teknikal Malaysia Melaka (UTeM)

Dr Mohd Nazmin bin Maslan
 Fakulti Kejuruteraan Pembuatan
 Universiti Teknikal Malaysia Melaka (UTeM)

Global Partners: gcf, MIGHT, Project Delivery Partners

*Until we meet again and back to normal life,
stay safe and stay strong to everyone.*



JKP building at night



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