

**POLITEKNIK SULTAN SALAHUDDIN ABDUL AZIZ SHAH**

**PROPOSAL:  
MULTI-FUNCTION IRON BOARD WITH MIRROR  
AND STORAGE RACK**

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## ABSTRACT

This study was made aimed at someone wanting home tidiness. The strategy carried out is after identifying all the problems of housewives who complain about the condition of their house is not organized and untidy. So we decided to do something that will help in many things that is a multi-functional iron board with a mirror. The statistics obtained reflect the level of interest people in using multifunctional equipment. The number of respondents involved was 50 respondents. There were 8 male respondents while 42 female respondents were respondents. It was found that female respondents were higher than male respondents. This is because, women need more items like multifunction iron board products. To fulfill the ironing board's multifunctionality, the major materials utilized in this project are plywood, wood, wood paint, mirrors, and screws. When visitors come over, there is a storage rack in the ironing board that serves as a place to put things and does not look cluttered. The legs of the ironing board are made of wood, which helps users, particularly housewives, with their labor. A screw to hold each part together so it looks nice and doesn't waver. Finally, wood paint is a long-lasting wood that is resistant to pests and weather changes.

Kajian ini dibuat bertujuan untuk seseorang yang inginkan kekemasan rumah. Strategi yang dijalankan adalah selepas mengenal pasti segala masalah suri rumah yang mengadu keadaan rumah mereka tidak tersusun dan tidak kemas. Jadi kami memutuskan untuk melakukan sesuatu yang akan membantu dalam banyak perkara iaitu papan besi pelbagai fungsi dengan cermin. Statistik yang diperoleh menggambarkan tahap minat orang ramai menggunakan peralatan pelbagai fungsi. Bilangan responden yang terlibat adalah seramai 50 orang responden. Terdapat 8 orang responden lelaki manakala 42 orang responden perempuan adalah responden. Didapati responden perempuan lebih tinggi berbanding responden lelaki. Ini kerana, wanita memerlukan lebih banyak barangan seperti produk papan besi pelbagai fungsi. Untuk memenuhi kepelbagaian fungsi papan seterika, bahan utama yang digunakan dalam projek ini ialah kayu plywood, kayu, cat kayu, cermin dan skru. Apabila pengunjung datang, terdapat rak penyimpanan di papan seterika yang berfungsi sebagai tempat meletakkan barang dan tidak kelihatan berseparah. Kaki papan seterika diperbuat daripada kayu, yang membantu pengguna, terutamanya suri rumah, dengan tenaga kerja mereka. Skru untuk memegang setiap bahagian supaya ia kelihatan bagus dan tidak goyah. Akhir sekali, cat kayu adalah kayu tahan lama yang tahan terhadap perosak dan perubahan cuaca.

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# CHAPTER 1: INTRODUCTION

## 1.1 INTRODUCTION

My team and I wish to perform new innovations in project 1. For our daily routines, we now have to spend a lot of money. So we make the decision to do something that will benefit us in a variety of ways. A multifunctional iron board with a mirror is our project. We chose this project since our target audience is housewives and businesswomen who require simple items that would aid them in their work. Multifunctional iron board with mirror that may be used as an iron board, as well as a mirror and storage shelves because it folds, this iron board may be packed into a small space, it saves a lot of space, especially for new families that live in small apartments. This iron board is made of high-quality materials that will last for 5 to 10 years since our goal is to prevent pollution caused by non-recyclable materials .

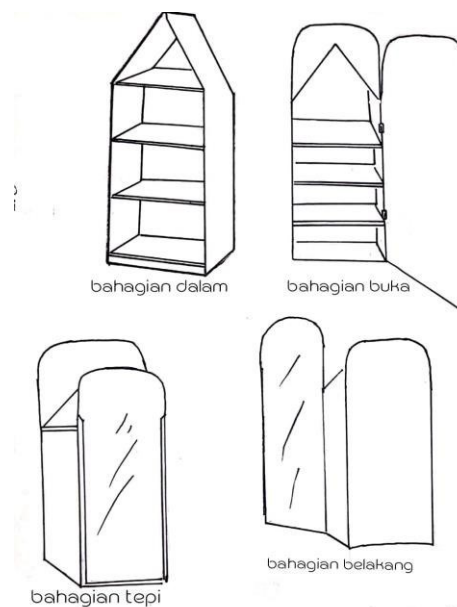


Diagram 1.1 ; example our project sketch

## 1.2 BACKGROUND PROJECT

We chose to do this initiative because we want to help in cost reduction, especially for new families who need large sums of money to prepare their new homes. Furthermore, customers must purchase two or three items in one transaction. It will have a large space. Furthermore, the products sold there are of poor quality and easily damaged.

Because we were inspired by a regular ironing board, we created a multifunctional ironing board with this mirror. However, we have improved the quality to make it better to satisfy our customers. Moreover, it can be used not only as an iron board, but also as a table if necessary.

It can then be used as a mirror stand. If we have a small area, we need a large mirror to make our place appear larger. Furthermore, mirrors are becoming increasingly crucial in today's society. For dressing up, everyone should have at least one mirror. It is quite important. However, today's mirrors cost more than RM100 for a stand mirror. That is why we created this multi-function iron board with mirror to assist a large number of people.

Aside from that, we have hidden storage racks. It is situated between the mirror and the iron board. We included this because we want the project to be functional. We'll construct it out of recyclable materials that won't pollute the environment.

So we decided to construct this multifunctional iron board with mirror in order to save money on several things. However, consumers can now obtain a single item that performs a variety of functions.



*Diagram 1.2 ; normal mirror and iron board*



Diagram 1.3 Multifungsi iron board with mirror storage rack.

### 1.3 PROBLEM STATEMENT

1. A limited budget. Particularly for students. Most of the time, it is very expensive for them, especially if we buy several goods at the same time.
2. Aside from that, a lot of furniture in the house will make the space appear more packed with many items like a multifunctional iron board with mirror, which can save folding when we don't want to use it and will look neater and more space-saving.
3. Because the materials are cheap and cannot be recycled, the furniture available is of poor quality. We wish to reduce pollution and save money in order to provide high-quality, long-lasting products at a reasonable cost.



## **1.4 PROJECT OBJECTIVES**

We have defined various objectives to implement and accomplish this project, including innovative thinking, incentives in tackling existing environmental concerns, and sensitivity to difficulties. This project can be applied everywhere. Having a multifunctional item at an inexpensive price reduces the need to purchase three distinct goods, which might be costly. Large home appliances will result in insufficient storage space, thus we present a multipurpose ironing board with three tasks in one. A storage rack is also included with the versatile ironing board. There are facilities in place to make the storage system more orderly and tidy.

## **1.5 PROJECT QUESTIONS**

Among the project objectives that have been listed, project questions are constructed to make it easier for me to evaluate project outcomes effectively. Among the project questions are:

- 1 Can these various functions make the job easier?
- 2 Does this multifunction use less space?
- 3 What are the benefits of this multi -function?
- 4 Is the cost of multifunctionality affordable for everyone.

## 1.6 PROJECT SCOPE

The nature of the functional diversity of facilities in three types of household appliances integrated into one is the subject of this study.

Wood, glass, and other materials are utilized in iron boards with mirrors and storage racks. This product also includes components that are environmentally friendly, in keeping with the project's theme of "innovation and sustainable." The materials used in this product are easily recyclable and do not pose a threat to the environment. Furthermore, the size and shape of our goods are ideal for smaller residential locations, and we also offer options for larger residential areas. The dimensions of our product are 200x35.



*Diagram 1.4 some iron board with mirror and storage rack*

## 1.7 IMPORTANCE OF THE PROJECT/STUDY

The findings of the study will aid in the implementation of environmental sustainability. This is due to the materials' environmental friendliness and ease of recycling. Glass, like other materials, is the best and easiest to recycle. Furthermore, our "multifunctional ironing board with mirror and storage rack" is sold at a reasonable price in accordance with the product design and high-quality materials.

## **1.8 SUMMARY**

A device that serves multiple purposes is known as multifunctional living. Because of the nature of being able to accomplish multiple occupations in one location, many people have agreed on this. Furthermore, many of today's items aren't really concerned with sustainability. Simply from the standpoint of looks good. In the future, we must begin to employ sustainable resources for good.

## **CHAPTER 2 : LITERATURE REVIEW**

### **2.1 INTRODUCTION**

Literature review is a very important thing in conducting research. The results obtained are also highly dependent on the methodology used in a study. Without a clear research methodology, the data obtained will be questioned and the conclusions of the study can also be questioned. Therefore, in this section will describe the methodology, data collection methods, as well as analytical methods used in this study. This is done to form a good methodology, thus producing a quality study.

### **2.2 SELECTION OF STUDY**

The use of quantitative and quantitative methods aims to obtain clear, accurate information and a better understanding of the problem statement as compared to running one method alone. In addition, this method can also compensate for the disadvantages of other methods. For example, the findings of qualitative methods are generalized to a limited extent whereas quantitative methods can be generalized for other research purposes. In addition, the researcher was also able to view the findings of the study from various perspectives even though the study using qualitative methods took longer than using quantitative methods, just distributing the questionnaire form.

In addition, appropriate quantitative methods are used to explain isolated cases, clarify whether the data are significant or insignificant and explain the emergence of new data. This design is suitable for use in conducting quantitative studies. Furthermore, the design of this study is suitable for use because the researcher can use the characteristics of the respondents from the quantitative findings to be used as a guide to select the intended sampling..

## **2.3 CONCLUSION**

Literary studies have an important role in research, which is to support and strengthen the ideas of researchers. Ideally, the literature reviewed is the original source of the scientific journal. For researchers it will certainly not be separated from the name of literary study as this is a series of concepts, definitions, and recommendations that serve to look at phenomena (research problems) systematically, through the specification of relationships between studied variables, so it can be useful to describe and predict phenomena or problems that need to be studied. Theoretical sources in research are divided into primary sources and secondary sources and tertiary theory. The theory studied has the function of explaining the problem to be studied, as a basis for formulating hypotheses and compiling research instruments conducted by researcher.

## **CHAPTER 3: METHODOLOGY**

### **3.1 INTRODUCTION**

The process of making multifunction iron board is gradual. the first level is to prepare raw materials first such as wood, iron, screws, and other craftsman's tools. we will start processing from the first part of the scrub board, drawer and last of the mirror. first, we will cut the wood according to the predetermined size. and this wood also requires some parts such as the body part of the drawer part and the leg part. This process will take about 5-7 days to shape her. after the multifunction iron board is formed, the final process of finishing the project is by painting and so on

#### **PART A: IRON BOARD**

(SYAFIKA BINTI MAT ARIF)

Now many people live in small apartments across the country. But only because you live in a small apartment, don't you need the same? things done by people living in big houses. Stay in a small apartment can also be referred to as dense living conditions. The purpose with this thesis is to make a multifunctional ironing board for a compact life. The ironing board must be easily accessible and easy to store after use. When the ironing board is not used, it should not look like an ironing board. Ironing board both can be mounted on the wall or hung on the door.

#### **PART B: MIRROR**

(HANIFAH SAHIRA BT OTHMAN)

A mirror is a reflective surface that is smooth enough to form an image or shadow that resembles the object facing it. A mirror is an object that has a flat surface and can reflect shadows perfectly. The use of mirrors is very common and the presence of mirrors can help human activities. A mirror is a very delicate object and is able to reflect light. A mirror is an object that can reflect almost any incoming light.

## **PART C : STORAGE SHALVES**

(JULIA NUR AIN BINTI SAMSUR)

Our main purpose in making storage shelves is as a storage place. we gave this storage rack because we want to maximize the use of this multi function iron board. We can put cosmetic in the storage rack , can store makeup, daily necessities such as tissues, face cotton. apart from that it can also be a storage place for accessories.

### **3.2 PROJECT DESIGN**

#### **PART A: IRON BOARD**

(SYAFIKA BINTI MAT ARIF)

The experiment includes two steps. The first step is to design and produce the multifunctional household ironing-table and complete preliminary emotional evaluation while the second step is to conduct comparative evaluation for the multi-functional household ironingtable with the rest of household ironing-tables existing in the market.



*Figure 11.4 Some iron board with mirror and storage rack*

Ironing board design hasn't changed much since the late 19th century. Although the primary purpose of an ironing board is to keep clothes wrinkle-free, it also has multiple uses, which comes in handy in smaller living spaces. Using an ironing board and a hot iron is still the most common way to press clothes. An ironing board may be built into kitchen cabinetry or it may be a stand-alone item, but its design and function are still very much the same.

Our ironing board can also be used as a temporary table. because of its appropriate measurement size. the size for our ironing board is 130cmX35cm .To repurpose an ironing board as a shelf or table, decorate it by painting or covering it to match the decor. Ironing boards are sturdy by design and can easily handle the weight of a laptop, books or other shelving accouterments.

### How to Make a Portable Ironing Board

#### Step no 1:

Find a board the measurements for each corner, which are 39cm long, 17cm wide, and 110cm high, while the storage rack is 39cm long and 17cm wide.

Remember not to make your ironing board too big, so you keep it portable. Use an old wood shelf that's not bigger or purchase plywood at your local lumber store. Make sure the plywood is between the measurements for each corner, which are 39cm long, 17cm wide, and 110cm high, while the storage rack is 39cm long and 17cm wide.



#### Step no 2:

Measure out the board's cushioning. You can use an old towel or quilt batting for the cushioned part of your ironing board. Use a cotton/polyester blend if you decide on batting and double the thickness of any towel you use. Trace the size of batting to fit on the top and sides of your board.



Step no 3:

Measure and cut the thick fabric covering. The fabric you use to cover the ironing board should be heavy, so it can withstand lots of high heat from your iron. Choose duck-cloth or linen fabric. Measure the fabric covering to be twice the size of the board's length and 4 inches (10 cm) wider on the remaining three sides



## **PART B: MIRROR**

(HANIFAH SAHIRA BT OTHMAN)

### **1. MIRROR USER BACKGROUND**

Even long ago, humans were fascinated by contemplation. And now, no one leaves the house without seeing it appear in the mirror. It is also used for other practical purposes such as examining what is behind the road and developing scientific mirror imaging instruments such as microscopes and lasers. The first mirror people use may be a reflection pool, still water, a metal surface or water placed in a container. The earliest mirrors produced were fragments of stone polished like obsidian which is a natural volcanic glass.

Then, in the first century AD, metal -coated glass mirrors were widely designed in the region of Sidon. Meanwhile, there were many Romans who began to develop techniques that you could use in making raw mirrors and successfully incorporated lead mirrors into previously blown glass. Diocelles and Ibn Sahl studied the parabola of mirrors. Ptolemy experimented with curved iron mirrors. European manufacturers of venicah mirror bedroom furniture perfected the method of coating tin-mercury amalgam glass in the early Renaissance. Glass mirrors are currently very expensive.

## 2. MIRROR FUNCTION

### I. Decorated Tools and Become a Benchmark Status

The most important function of a mirror is as a tool to see the reflections of parts of the body that cannot be seen directly by our eyes. Admittedly, this function has evolved since time immemorial. Even mirrors become a part of people's lives thanks to their ability to help people apply makeup and proper appearance.

In the past, mirrors were not as easy to achieve as they are now. The science of making mirrors is still minimal. This causes the mirror to only be seen by a handful of people. Usually, only the meaning has a mirror. The relatively expensive price of mirrors is the cause, To some extent it makes mirrors one of the benchmarks of wealth. Certainly large mirrors with charming carved frames belong to the nobility. The larger and more beautiful the carving, the higher the social onset of mobility.

### II. Not Just Decorated

The changes and developments of the times began to shift the function of mirrors that were originally only used for makeup. The rapid development of science made people know that mirrors can be used for other functions.

In addition to being a tool for shaping and tidying up, mirrors can be optimized as a medium of object reflection. In modern life, applications can vary. Mirrors as a medium of safety and security is one of the functions of mirrors nowadays which is quite important. The use of convex mirrors on sepia glass in motor vehicles is the simplest example. In addition to being sepia glass, convex mirrors are also often placed at sharp corners in the street. The goal is so that we can see the flow of traffic from the opposite direction so that when driving it is safer.

Various technological devices such as televisions, cameras, telescopes to projectors use mirrors as a tool to capture light reflections which are then reflected back or converted to other visual formats.

### **3. THE MIRROR IS DIVIDED INTO THREE PARTS**

- Flat mirror, is a mirror whose reflected surface is a flat plane. The surface of a flat mirror is very smooth and has a flat surface on the reflective part, usually made of glass. The back of the glass is coated with a thin shiny metal so that it does not penetrate light.
- Convex mirror, is a convex mirror or negative mirror. On a convex mirror, the face is shaped like a spherical skin, but the face of the convex mirror is curved outwards. The focal point of the convex mirror is behind the mirror so that it is virtual and a negative value. Convex mirrors have different properties. If the rays reflected on your convex mirror extend the base, they will intersect at the focal point (point of fire) behind the mirror. On calculations, convex mirror flames are negative because they are pseudo.
- Concave mirror, conclusive mirror or positive mirror. Concave mirrors have a reflecting surface that is curved or forms a hollow. A common line on a concave mirror is a line that passes through the center of curvature, i.e. at point M or 2F. The beam passing through this point will be reflected to that point as well. Concave mirrors collect reflected or contagious radiation. When parallel rays are applied to a concave mirror, the reflected light will intersect at one point. The intersection point is called the focal point or focal point (F). When the rays come through the focal point on the surface of the sink mirror, it turns out that all the rays will be reflected parallel to the major axis. However, if light comes through point M (2F), the reflected light will be reflected to that point as well

### **4. HOW TO CHOOSE A PLACE TO INSTALL A MIRROR?**

- The size of the room determines the installation of mirrors.
- For hallways equipped with classic style, except for large mirrors, add extras.
- If the ceiling is low, you can arrange it with mirror tiles - the room will look higher. A one piece panel with built -in lighting will also look attractive.
- Some homeowners like intermediate mirror panels.

- In a large entrance hall with a reflective surface equipped with a dressing room, the entrance to this room is served. They can be decorated with patterns, have matte or non-washable inserts.
- A single mirror usually has a right or left entrance. This is done for convenience.
- You do not need to have a large mirror, as well as a dressing table in front of the door.
- The average size of the product should be placed so that you can see the face + 10-20 cm above completely. A low dressing table is better placed in the bedroom.

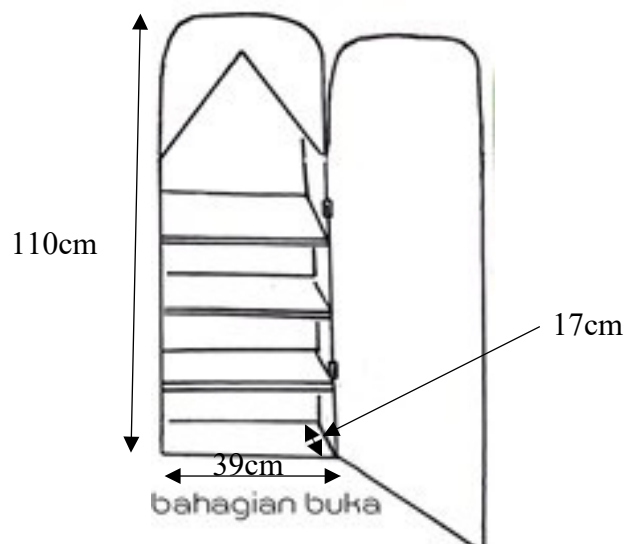
## **PART C : STORAGE SHALVES**

(JULIA NUR AIN BINTI SAMSUR)

### **1. PREVIOUS REVIEW**

Although multifunction iron board with mirror give us a lot of benefit. Multifunction iron board with mirror has many benefits, even more so in doing day-to-day tasks. Apart from that it will also not have a negative impact on the environment because the materials used are very high quality and can be recycled. The estimated age of this item is 5-10 years if used in the right way. This material will remain intact. So we don't have to spend a lot of money to buy 2-3 types of goods even though we can buy 1 multi-functional item. Based on my experience, a regular scrubbing table is very easily damaged due to the very poor quality of its dad. In addition, the structure of the scrubbing table is not strong and will sway when used.

Other than that, if you use this multifunction iron board with mirror you will get a mirror as well. This will save us money. At an affordable price we will get a mirror measuring 39cm x 17cm x 110cm.



### **3.2.1 METHODS/PROCEDURES/TECHNIQUES OF PROJECT PRODUCTION**

#### **1. METHODS OF DATA COLLECTION**

This study uses a quantitative method that involves a questionnaire as an instrument. The design of the survey method was chosen for the collection of data and information on a regular basis. The design of this survey was used because of its suitability to survey the influence and use of household items especially on housewives. The study was conducted on the general public, who have various infrastructure facilities. The study included all nations including Indonesia, China, India and others. The age category of respondents selected was 18 years and above. The respondents of the study also include communities from urban and rural areas in the state of Selangor. The selection of respondents is based on purposeful sampling and meet the specified characteristics that users of the WhatsApp application use WhatsApp and still continue the relationship to this day. The number of samples is a total of 50 respondents who meet the characteristics that have been set. This study uses a questionnaire form instrument. The use of questionnaires as a research instrument is popular as it is more practical and effective (Mohd. Majid, 2004) for a large sample. Based on the objectives and problems of the study, the items of questions or statements in the questionnaire are closed. The researcher has built a questionnaire in one language that includes English to make it easier for respondents to understand and answer

## 2. PROJECT PRODUCTION PROCEDURES/TECHNIQUES

### a) Steps to Making an Ironing Board

Step 1:

On the ironing board, draw the project and write the measurements for each corner, which are 39cm long, 17cm wide, and 110cm high, while the storage rack is 39cm long and 17cm wide.

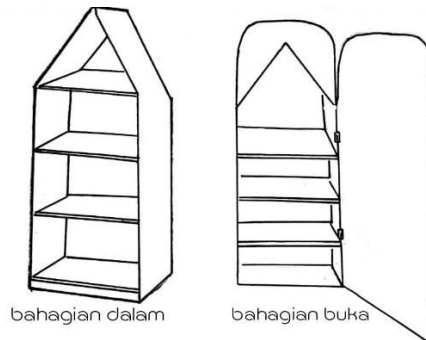


Figure 3.2 Project sketch

Step 2:

Playwood is cut into two parts: the in front and the edges, using wood cutting equipment. The top is a semi-circle made up of two parts and measures 110cm x 39cm on the outside. The edges are cut to a size of 100cm x 17cm, resulting in two pieces.

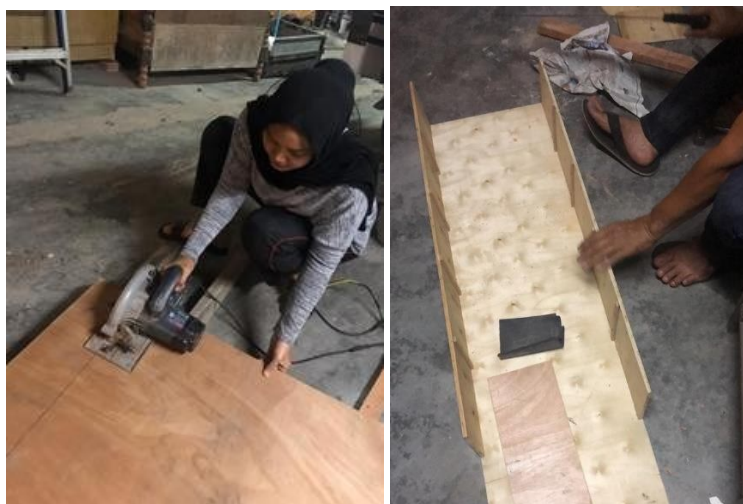


Figure 3.3 Board or wood cutting machine

## b) Steps to create a storage shelf section

Step 1:

In addition, the drawer component of the 7-piece drawer is cut to a dimension of 39cm x 17cm from the plywood.



Figure 3.4 Wood saw

## c) Steps for making ironing board legs

Step 1:

The ironing board's legs should be made of wood and cut along a 100cm length with a wood cutting machine. Connect the pieces of wood with screws after they've been cut.



Figure 3.5 Iron cutting machine

#### d) Project finishing steps

Step 1:

Finished the cut task, we need an old wooden cat and no pests



*Figure 3.6 wooden cat*

Step 2:

Parts of the ironing board need to add sponge and fabric to prevent damage to the clothes being ironed



*Figure 3.7 Span and fabric*



Step 3:

The front of the storage rack, need to add a mirror to meet the multifunctionality of the project by using glue to attach the mirror to the board



Figure 3.9. Iron board shape mirror

### The result project FYP

This is the result after parts of mirrors, drawers and scrub boards when combined. the exterior has been painted using wood colour with colour cream .The windshield section, the inner shelf part, and the ability to be used as an ironing board when turned upside down are the three functionalities supplied. The product will be tested in terms of stability and strength according to the objectives that have been made.



Figure 3.10 Multifunction iron board with mirror

### **3.2.2 MATERIALS AND EQUIPMENT**

#### **I. MATERIALS**

The main materials used in this project are wood, wood paint, mirrors, and screws, to meet the multifunctionality of the ironing board. storage rack in the ironing board that serves as a place to store things and does not look littered when guests come. Wood is to make the legs of the ironing board that serves to facilitate the work of users, especially to housewives. A screws to connect each part to look neat and not swaying. Finally wood paint serves as a long lasting wood, no pests and weather changes.

#### **II. EQUIPMENT**

The equipment used in making multifunctional ironing board is a wood cutting machine, wood saw, iron cutter, measuring tape, measuring pencil, screwdriver, safety glove, glasses and so on. At the beginning of the work we need to wear neat and comfortable clothes to do the work therefore we must wear safety gloves to avoid injury. The use of the machine should also ensure wearing safety gloves with goggles to avoid the most important emergencies we must be careful to do any work. When using the most important board and wood cutting machine should be wear safety gloves and goggles to avoid injury, use this cutting machine to cut the board part to make the ironing board part and the mirror holder. We have divided each task to do the work, such as one has to cut the board, one has to cut the wood, etc. because each member of the group has to do the work. The measuring tape is to measure any work with the value that has been sketched. The measuring tape must have a pencil a gauge should be available due to mark the surface of the wood material and plan to cut. Finally a screwdriver should also be available due to turn the screws between the connected parts.

### III. COST OF MATERIALS AND EQUIPMENT

The budget for our project is RM300. The following is the cost plan for the multifunctional ironing board project:

BIL	MATERIAL AND EQUIPMENT	COST
1	Playwood	RM81.50
2	Wood	RM35.00
3	Wood paints and brush	RM50
4	Mirror	RM110
5	Screw	RM0.20(eash)
6	Measuring type	RM10
7	Glove safety	RM2(Pair)
8	safety glasses	RM3
9	Others	RM100

### **3.2.3 DATA ANALYSIS METHODS**

After obtaining the data and information required through the questionnaire that has been prepared as well as the information obtained orally and through questionnaires. These data are then analyzed so that conclusions can be generated. Statistics obtained illustrate the level of public interest in using multi-functional equipment. The number of respondents involved was 50 respondents. There are 8 male respondents while there are 42 female respondents. It is found that female respondents are higher than male respondents. This is because, women need more items like our products.

Our group conducted a survey through Google Forms. Now many people prefer this multi-functional product as home use furniture because of its simple, fast and neat nature. men also choose products like these because they are more by nature easy and fast.

In our survey, we posed 7 questions to ask about their opinions on multifunctional products. The survey was supported by 50 people. Tables & diagrams below shows the questions & answers for him

## QUESTION 1

### BUDGET MONEY FOR HOUSEHOLD ITEMS

51 responses

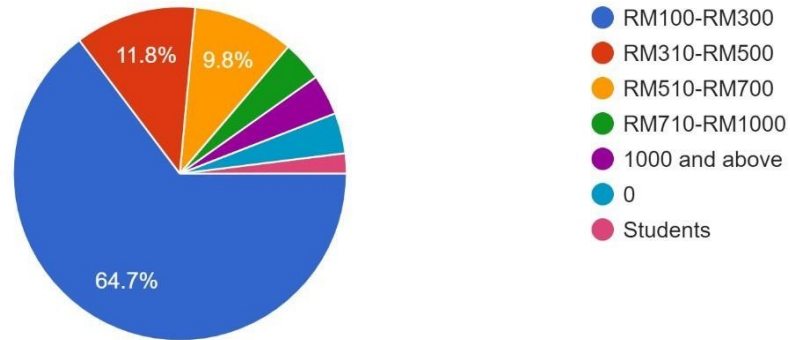


Diagram 3.11 : Pie chart for the responds that respondents made for Question 1

## QUESTION 2

### DO YOU LIKE MULTIFUNCTIONAL STUFF

51 responses

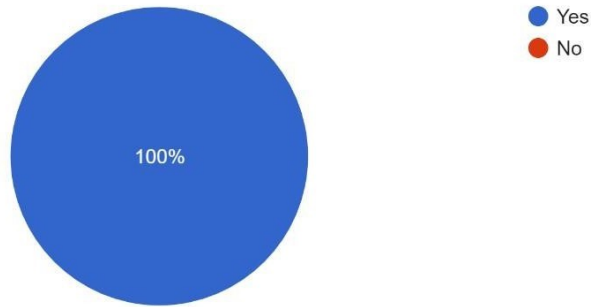


Diagram 3.12 : Pie chart for the responds that respondents made for Question 2

### **QUESTION 3**

ARE YOU WILLING TO SPEND MORE MONEY FOR QUALITY ITEMS

51 responses

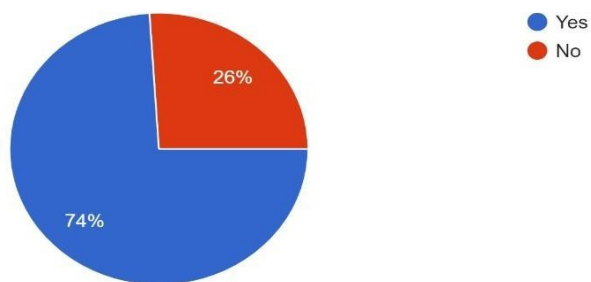


*Diagram 3.13 : Pie chart for the responds that respondents made for Question 3*

### **QUESTION 4**

DO YOU LIKE HOME FURNITURE THAT LOOKS NEAT

50 responses



*Diagram 3.14 : Pie chart for the responds that respondents made for Question 4*

## **QUESTION 5**

WHICH CHOICE YOU LIKE FOR HOME FURNITURE?

51 responses

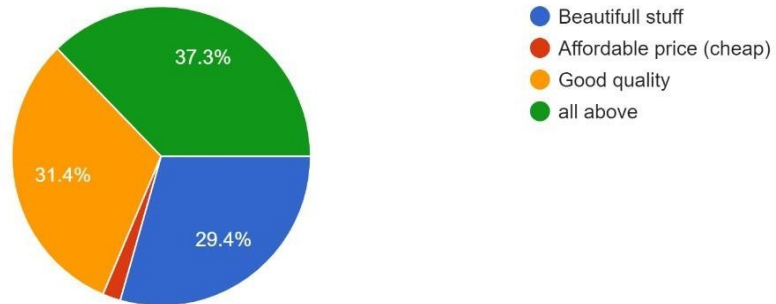
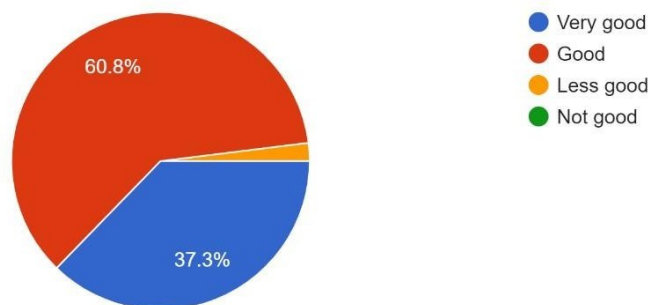


Diagram 3.15 : Pie chart for the responds that respondents made for Question 5

## **QUESTION 6**

THE PRODUCT TO BE PRODUCED WILL PROVIDE CONVINIENCE TO THE USER AND DOES NOT REQUIRE MUCH ENERGY

51 responses



agram 3.16 : Pie chart for the responds that respondents made for Question 6

### **3.3 SUMMARY**

Referring to our survey through goole form many people agreed to use this multifunctional ironing board as furniture as well as tools for their daily use. This is due to the nature of the product which is more user -friendly and has many advantages of its own. Over 90% of people choose to spend more to buy this quality equipment and perhaps the surplus from this question by 10% prefer items that have beautiful designs. the advantage of this ironing board with mirror and storage rack is the material material used to make this furniture 80% use environmentally friendly material and good in terms of sustainability. An example is glass. glass is a material that is easy to recycle and does not harm the environment. Another advantage is that this product can save money because people do not have to buy 3 separate items because our product has combined 3 things that can be done in one place.

Ironing boards with mirrors and storage racks serve the same purpose of making you look cohesive. Fortunately, it is not needed 24 hours a day and rarely, if ever, is it used at the same time. Great multifunction when pullable without compromising style. The Ironing Board Mirror is a space -saving tool, as one side is the ironing board and the other a full length mirror



## **CHAPTER 4 : CONCLUSION AND SUGGESTIONS**

### **4.1 INTRODUCTION**

Every idea & project brought needs a response from the community, to check whether the project is acceptable to them or not. Thus, we can also confirm that this idea is suitable & perfect or not. Another additional advantage that we can get from the survey is that we can also receive a lot of suggestions from the community that can help our project and some information that we may not know & problems that we are not aware of this project. Our group conducted a survey through Google Forms. We managed to survey by this because, recently the whole world was obsessed with a pandemic, called Covid-19. A virus called Corona is the main reason how this epidemic is getting worse day by day. Many people get sick & die around the world every day. It is very dangerous for people who are not healthy & whose antibodies are not as strong as usual To prevent us all from getting sick, we cannot go outside & contact other people That is the reason why we conduct surveys like this. We do surveys through Google Form as well because it can save time & cost. Surveys in Google Form can be made by simply tapping the question on a computer or mobile phone & after creating it, we can share the link on social media platforms like WhatsApp, Facebook, Instagram, Telegram, Twitter & more. By sharing on this platform, it can reach a lot of people who are active about it. We also don't have to take the time to because asking people to express their opinions like going to a public place, printing a survey form & asking people to fill it out. We can just share the link & continue with the other work that needs to be done. Although we are independent, we can only check the number of responses received from Google Drive.

## **4.2 CONCLUSION**

The research conducts an experimental test for housewife using new multi-functional household ironing-table, and the method for emotional evaluation is used to evaluate consumer's recognition degree for the product. Thus, it is found that the primary research for the prototype on the future development trend has been completed to some extent. At present, the research of ironing tool concentrates on enhancing the function achievement of ironing effect, which makes the household ironing products occupying a large market share neglected. The research focuses on solving the conflict between the ironing effect of ironing products and the ratio of space occupied.

In the research and development of multi-functional household ironing-tables, the thought of product design shall be combined with mechanical engineering. The thinking mode of product design focuses on how to apply the machine parts that can improve ironing effect to household products and the free conversion of two or more roles. The objective of mechanical engineering lies in how to achieve the ironing technology with high quality and efficiency.

## **4.3 SUMMARY**

Ironing boards and mirrors work toward the same goal of making you appear puttogether. Fortunately, neither is necessary 24 hours a day and rarely, if ever, are they used at the same time. Multifunction is great when it can be pulled off without compromising style.

This ironing board designed by flips back into a full-length mirror. The board is a bridge between two actions—that of ironing clothes and dressing up. A mirror that doubles as an ironing board, seems quite clever. “This object is a link between two consecutive actions: iron clothes and dress up,”

The Ironing Board Mirror is a space saving device, as one side is an ironing board and the other a full length mirror

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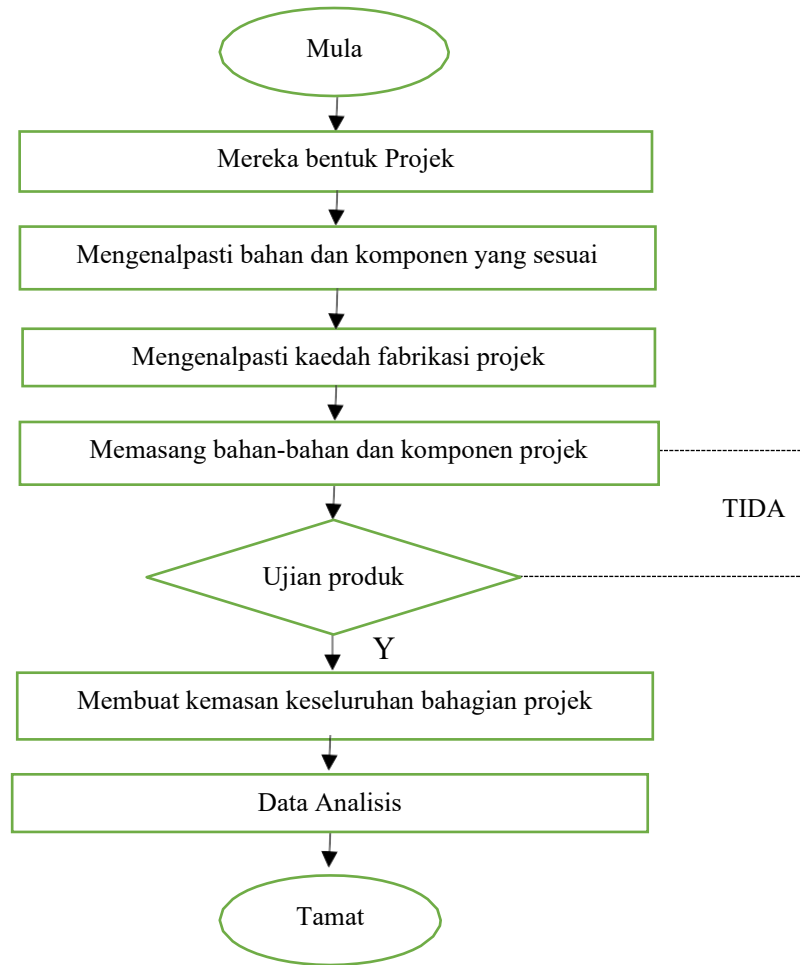
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## CARTA ALIR METODOLOGI / METHODOLOGY FLOW CHART



Rajah 2.1 : Carta Alir Metodologi Pembangunan Projek

### Carta Gantt (Projek 2)

Minggu / Aktiviti	M 1	M 2	M 3	M 4	M 5	M 6	M 7	M 8	M 9	M 10	M 11	M 12	M 13	M 14
Pendaftaran Kursus														
Menulis Laporan Akhir														
Pendaftaran MyIPO														
Memasang bahan-bahan dan komponen projek														
Ujian produk														
Membuat kemasan keseluruhan bahagian projek														
Analisa Data														
Semakan Plagiat (Turnitin)														
Persembahan Kemajuan Projek ( <i>Project Progress Presentation</i> )														
Persediaan Pembentangan														
Semakan Abstrak oleh penyelia														
Semakan Technical Paper oleh penyelia														
Pembetulan/Pemurnian Laporan Akhir														
Semakan Abstrak oleh Juru Bahasa														
PITEX JKM Video, technical paper, poster, Abstrak (selepas semakan)														
Penyerahan Laporan Akhir														
RICE PSA														
Penyerahan Logbook														

## **ATTACHMENT**

**ATTACHMENT A**

Questionnaire

**ATTACHMENT B**

List of Respondents

### **ATTACHMENT A : QUESTIONNAIRE**

**CUSTOMERS SATISFICATION ABOUT MULTIFUNCTION THINGS.**

This survey form is for our year -end project, all data and information you obtain is confidential and will only be used for the purpose of our survey. Our year -end title is innovative and sustainability.

1. BUDGET MONEY FOR HOUSEHOLD ITEMS

- RM100-RM300
- RM310-RM500
- RM510-RM700
- RM710-RM1000

2. DO YOU LIKE MULTIFUNCTIONAL STUFF

- YES
- NO

3. ARE YOU WILLING TO SPEND MORE MONEY FOR QUALITY ITEMS

- YES
- NO

4. DO YOU LIKE HOME FURNITURE THAT LOOKS NEAT

- YES
- NO

5. WHICH CHOICE YOU LIKE FOR HOME FURNITURE?

- BEAUTIFULL STUFF
- AFFORDABLE PRICE (CHEAP)
- GOOD QUALITY

6. THE PRODUCT TO BE PRODUCED WILL PROVIDE CONVINIENCE TO THE

USER AND DOES NOT REQUIRE MUCH ENERGY

- VERY GOOD
- GOOD
- LESS GOOD
- NOT GOOD

Q1	Q2	Q3	Q4	Q5	Q6	Q7
dont have	RM100-RM300	YES	Yes	Yes	Beautifull stuff	Very good
not fixed	1000 and above	YES	Yes	Yes	all above	Very good
RM1000 kebawah	RM100-RM300	YES	Yes	Yes	Good quality	Good
RM1000 kebawah	RM100-RM300	YES	Yes	Yes	all above	Good
student	RM310-RM500	YES	Yes	Yes	all above	Very good
0	0	YES	Yes	Yes	Good quality	Good
0	0	YES	Yes	Yes	Good quality	Good
not fixed	1000 and above	YES	Yes	Yes	all above	Very good
tiada	RM100-RM300	YES	Yes	Yes	Good quality	Good
none	RM100-RM300	YES	Yes	Yes	Good quality	Good
RM1000 kebawah	RM310-RM500	YES	Yes	Yes	Good quality	Good
RM1100-RM3000	RM510-RM700	YES	Yes	Yes	Good quality	Good
RM1000 kebawah	RM100-RM300	YES	Yes	Yes	all above	Very good
RM1000 kebawah	RM100-RM300	YES	Yes	Yes	Good quality	Good
0	RM100-RM300	YES	Yes	Yes	Good quality	Very good



RM1000 kebawah	RM100-RM300	YES	Yes	Yes	all above	Good
RM1100-RM3000	RM100-RM300	YES	Yes	No	Good quality	Less good
RM1000 kebawah	RM510-RM700	YES	Yes	Yes	Good quality	Good
RM1000 kebawah	RM100-RM300	YES	Yes	Yes	all above	Very good
RM1100-RM3000	RM100-RM300	YES	Yes	Yes	all above	Good
RM1100-RM3000	RM100-RM300	YES	Yes	Yes	all above	Good
RM1000 kebawah	RM100-RM300	YES	Yes	No	Beautifull stuff	Good
RM1000 kebawah	RM100-RM300	YES	Yes	No	Beautifull stuff	Good
RM1000 kebawah	RM100-RM300	YES	Yes	No	Beautifull stuff	Good
RM1100-RM3000	RM100-RM300	YES	Yes	No	Beautifull stuff	Good
RM1000 kebawah	RM100-RM300	YES	Yes	No	Beautifull stuff	Good
RM1000 kebawah	RM100-RM300	YES	Yes	No	Beautifull stuff	Good
Masih belajar	RM510-RM700	YES	Yes		all above	Good
RM1000 kebawah	RM100-RM300	YES	Yes	Yes	Beautifull stuff	Good
RM1000 kebawah	RM100-RM300	YES	Yes	No	Beautifull stuff	Good
0	RM310-RM500	YES	Yes	Yes	all above	Good

RM1000 kebawah	RM100-RM300	YES	Yes	No	Beautiful stuff	Good
RM1000 kebawah	RM100-RM300	YES	Yes	No	Beautiful stuff	Good
RM1000 kebawah	RM310-RM500	YES	Yes	Yes	all above	Good
I dont work	RM310-RM500	YES	Yes	Yes	all above	Very good
RM1000 kebawah	RM310-RM500	YES	Yes	Yes	Good quality	Very good
RM1000 kebawah	RM510-RM700	YES	Yes	No	Good quality	Good
RM1000 kebawah	RM100-RM300	YES	Yes	Yes	Good quality	Very good
RM1000 kebawah	RM710-RM1000	YES	Yes	Yes	all above	Very good
RM1000 kebawah	RM100-RM300	YES	Yes	Yes	Affordable price (cheap)	Very good
RM1000 kebawah	RM510-RM700	NO	Yes	Yes	all above	Very good
RM 0	RM710-RM1000	YES	Yes	Yes	Good quality	Good
Students	Students	YES	Yes	Yes	all above	Very good
RM1000 kebawah	RM100-RM300	YES	Yes	Yes	Good quality	Very good
RM1000 kebawah	RM100-RM300	YES	Yes	No	Beautiful stuff	Good
RM1000 kebawah	RM100-RM300	YES	Yes	Yes	Beautiful stuff	Good
RM1000 kebawah	RM100-RM300	YES	Yes	Yes	all above	Very good
RM1000 kebawah	RM100-RM300	YES	Yes	No	Beautiful stuff	Good
RM1000 kebawah	RM100-RM300	YES	Yes	Yes	all above	Very good
RM1000 kebawah	RM100-RM300	YES	Yes	Yes	all above	Very good
RM1000 kebawah	RM100-RM300	YES	Yes	Yes	Beautiful stuff	Very good