

G8

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LIVING POD PROJECT

FOR MIGRANT WORKERS

Teacher: Mr Moneeb

Homeroom: 8A



**International
School of London**
Qatar

KEY CONCEPT

COMMUNITIES

are groups that exist in proximity defined by space, time or relationship. Communities include, for example, groups of people sharing particular characteristics, beliefs or values as well as groups of interdependent organisms living together in a specific habitat.

RELATED CONCEPTS

INNOVATION & SUSTAINABILITY

GLOBAL CONTEXT

FAIRNESS AND DEVELOPMENT

(Inequality, Difference and Inclusion)

STATEMENT OF INQUIRY

“To reduce **inequality**, we can design for a **community’s** needs, using **innovative** and **sustainable** design”

INQUIRY QUESTIONS

FACTUAL

What are the main requirements of a living space for people?

What are the minimum dimensions of a kitchen/bedroom/living room/bathroom

CONCEPTUAL

How are Living spaces designed to meet the community's needs?

What sorts of problems are faced by migrant workers in Qatar?

DEBATABLE

Is the lifestyle of a person the biggest driving force of a living space?

Do we need to consider the environment to create a sustainable living space?

LEARNER PROFILE

- Inquirers: Researching a particular problem in detail and coming up with a good solution.
- Communicators: Communicating their ideas and solutions to the problem using different mediums.
 - Caring: Taking consumer needs of those less fortunate than them into consideration
 - Risk takers: Taking risks in the CAD modelling of designs to see if they work

GOAL

The main aim of this unit is for pupils to understand that you can use design to provide a solution to a problem and “design for a purpose”. Pupils will also learn the design process of an Architectural designer as well as developing their analysis, physical modelling, 3D modelling and presentational skills. This project requires them to consider social, moral, economic and environmental factors surrounding them through “looking at the lives of migrant workers and the struggles they have”.

ROLE

You are a **Architect** for domestic Houses and Living Spaces.

AUDIENCE

Your target audience are **Migrant Workers** living in Qatar.

SITUATION

Many of the Migrant workers living in Qatar and other parts of the world are living in condition not appropriate for the workers. They share accommodation with many other people and this can lead to many issues (eg: lack of space, lack of hygiene and lack of privacy etc).

PRODUCT

Your task is to DESIGN and MAKE a prototype Pod (living space) for Migrant workers in Qatar. Whilst designing you will need to consider the target user’s needs, the surroundings (climate and conditions of Qatar) as well as the design brief specification. You could consider a sustainable design that is attractive to look at and live in.

SPECIFICATION

Your Living Pod must be attractive for your target audience.

- You must consider the size of the Pod, it must not be too large that it seems like a house and not be too small that it does not accommodate all the necessary requirements for living migrant.
- It must be a good size and fit your specification and target user needs.

Software/Hardware

You will use the following software:

- 3D Autodesk Meshmixer
- Google SketchUp
- Google Drives/Classroom

You will use the following hardware:

- Laptop
- 3D printer
- D&T Workshop machines

DESIGN TASK

You will Research, Design and Make using CAD a Living Pod for migrant workers.

AREAS OF ASSESSMENT

Criterion A: Inquiring and Analysing

- i. **explains** and **justifies** the need for a solution to a problem for a client/ target audience
- ii. **constructs** a **detailed** research plan, which **identifies** and **prioritizes** the primary and secondary research needed to **develop** a solution to the problem independently
- iii. **analyses a range of** existing products that inspire a solution to the problem in detail
- iv. **develops** a **detailed** design brief, which **summarizes** the analysis of relevant research.

Criterion B: Developing Ideas

- i. **develops detailed** design specifications, which **explain** the success criteria for the design of a solution based on the analysis of the research
- ii. **develops a range of** feasible design ideas, using an appropriate medium(s) **and detailed** annotation, which can be **correctly** interpreted by others
- iii. **presents** the chosen design and **justifies fully and critically** its selection with **detailed** reference to the design specification
- iv. **develops accurate and detailed** planning drawings/diagrams and **outlines** requirements for the creation of the chosen solution.

Criterion C: Creating the Solution

- i. **constructs a detailed and logical plan**, which **describes** the efficient use of time and resources, sufficient for peers to be able to follow to create the solution
- ii. **demonstrates excellent** technical skills when making the solution.
- iii. follows the plan to **create** the solution, which functions **as intended** and is presented **appropriately**
- iv. fully **justifies** changes made to the chosen design and plan when making the solution.

Criterion D: Evaluating

- ii. critically **evaluates** the success of the solution against the design specification
- iii. **explains** how the solution could be improved
- iv. **explains** the impact of the product on the client/target audience.

Obtaining high marks

You must try and aim to achieve the highest marks possible for each criteria. The highest mark for each criteria is 8.

To obtain the highest marks you must try and meet all the requirements of the criteria eg: if it says **describe** you must go into detail rather than just **state** a few things to obtain the mark for describe.

Extra Advise:

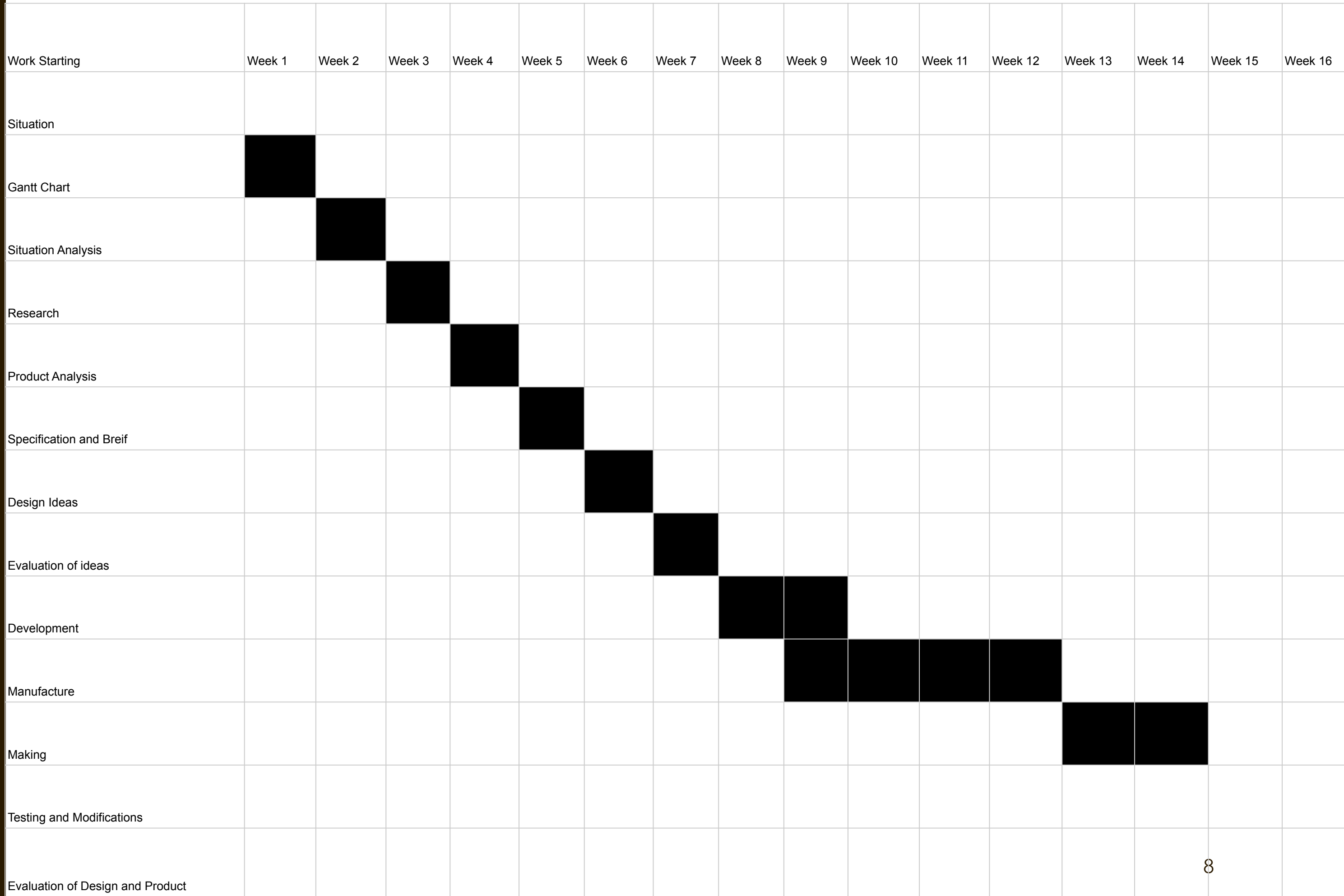
Other than the levels criteria, to obtain high marks you should consider the following:

- •Always refer your design back to a concept and the Target Market, which is the Migrant workers.
- •Always try to respond creatively to briefs and relate back to your design specification.
- •Think about the interior design as well as the exterior design of your living pod.
- •Link your design to a inspiration/concept/design movement.
- •Think about the functionality as well as aesthetics.
- •Think about how to make an eco-friendly and sustainable pod.
- •To consider environmental and sustainable issues in designing their living spaces (pods).
- •When presenting your final living pod, communicate your designs using a range of media (3D CAD Modelling, Sketches, 3D prototype card model).
- •Use CAD/CAM when making.

INQUIRING AND ANALYSING

Criterion A:

GANTT CHART



Research – Migrant Workers

1. Explain the term Migrant? Give an example

A person who lives temporarily or permanently in a country where they were not born.

A student or temporary worker.

2. State a few reasons why a person leaves one place for another?

- Seek better employment
- Access a better education
- Escape persecution
- Be closer to friends and family
-

3. Explain the following words below? Give examples

Refugee:

A person who is forced to leave their country in order to escape war/persecution/natural disaster.

Asylum Seeker:

A person who has left their country and has applied for recognition as a refugee in another country, and is awaiting a decision on their application.



Research – Human Rights

1. How would you define Human Rights?

The rights you have simply because you are a human.

2. Who is entitled to Human rights?

Everyone everywhere.

3. List 5 things you think are essential to human life?

1. The right to practice your own religion
2. The right to clean water
3. The right to food
4. The right to a shelter
5. The right to medicine

4. Write down as many rights as you can think of? One has been done for you.

1. The right to clean water
2. Right to privacy
3. The right to education
4. The right to food
5. The right to clothes
6. The right to being treated equally
7. The right to the freedom of speech
8. The right to work
9. The right to cleanliness
0. The right to your own things

6. In what year was the United Nations formed?

1945.

7. How many Human Rights are in the Universal Declaration?

A total of 30 Human rights.

8. What reason is given for why there are still countries who do not follow the Universal Declaration of Human Rights?

It was optional and wasn't enforced by law.

9. Can you name at least 3 people who have been influential in the fight for Human Rights?

1. Rosa Parks
2. Mohandas Gandhi
3. Jimmy Carter
4. Martin Luther King jr

10. Fill in the missing spaces below:

Money or monies that migrants send home to their families in the home country are referred to as their salary.

Migrants need a work visa to legally work in a another country.

JUSTIFY THE NEED FOR A SOLUTION

Explain and **Justify** the need for your POD? First explain the **Problem** (you must think of this yourself) then explain and justify Why is it important for you to make an educational website? What benefits will it bring to ISLQ and the wider community? (Below is an example of the command terms showing the difference between Explaining something and Justifying it.

The problem that we are trying to find a solution for is that the migrant workers in Doha are living in conditions that don't meet the specifications of Human Rights, some of them include their right to privacy, their right to cleanliness and their right to their own things. Many of them live with around 6-8 other men. Looking at the images on the right you can see right away in many of the places that these workers live they don't have any privacy as they are sharing a room with many other people. The conditions in the bathrooms as you can see in the third picture don't seem clean and this has a big impact on their hygiene because the shower is full of dirt and hair and the floor is going to always be wet. Their right to their own things meaning at least a little bit of privacy where they have their own clothes and own shampoos and things like that because some of them have to share these kinds of items, but they also need their own space where they don't need to share it or at least only share it with one other person. Also many of them complain about not being able to do their hobbies because the place is too small and crowded or because they don't want to wake up their roommates since many of them have different shifts. Their kitchens are filthy as well also elaborating on their right to food because the food they make won't be clean and might cause food poison.

In my opinion making a living pod would be efficient because it does not take up much space meaning there can be many in one area, the pod would have everything they need even enough storage for their personal belongings, it has a lot of privacy since it is your own little house, it would not cost that much to live in it based on its size, as well as the fact that the place being their own means they can take a rest come and go whenever they please not having to worry about disturbing other people. In the pod they would get a much cleaner kitchen with clean kitchen equipment. The migrant workers moving here to earn money to send back to their families and living in such poor conditions is not fair on them and their hard work and what they do for the country so giving them something like this as a gift would be a very nice gesture to thank them for their work.



SITUATION ANALYSIS / RESEARCH PLAN

Below is an example of how to analyse your situation through a research plan. You need to do this for all the CAFQUES headings. Only some of them have been shown below:

| <u>Generic Area</u> | <u>What has to be Researched?</u> | <u>How will it be researched?</u> | <u>Is it Primary or Secondary Research?</u> |
|--|---|---|---|
| COST | <ul style="list-style-type: none"> •How much will it cost to make my pod? How much will the Materials cost? How much will I need to pay the builders? How much will it cost them to live here? How much will it cost me to build on this land? | <ul style="list-style-type: none"> Internet Research Internet research Ask their manager Internet research | <ul style="list-style-type: none"> Secondary/ Primary Secondary/primary Primary Secondary |
| AESTHETICS | <ul style="list-style-type: none"> What colours will be used? Does the overall look have a good quality finish? What theme should the room have? What shape will it be? How will the bedroom look? Will they have a garden? | <ul style="list-style-type: none"> Based on needs Based on needs Based on needs Based on architect design Based on design Based on needs | <ul style="list-style-type: none"> Primary Primary Primary Primary/Secondary Primary Primary |
| FUNCTION | <ul style="list-style-type: none"> How much space will the furniture take? How much storage do they need? How much space do they need? How can I make the place functional but have everything they need? What do they need? How many floors will the pod include? What will they use the space for? | <ul style="list-style-type: none"> Internet Research Based on needs Based on needs Interior design videos Based on needs Based on needs Based on needs | <ul style="list-style-type: none"> Secondary Primary Primary Secondary Primary Primary Primary |
| MAKING (Software, Hardware) | <ul style="list-style-type: none"> What software will I be using? Is the software made to design such things? | <ul style="list-style-type: none"> Research Research | <ul style="list-style-type: none"> Primary/secondary Primary/secondary |

SITUATION ANALYSIS / RESEARCH PLAN

| <u>Generic Area</u> | <u>What has to be Researched?</u> | <u>How will it be researched?</u> | <u>Is it Primary or Secondary Research?</u> |
|-----------------------|--|--|---|
| USER | Who is my target user? What do they need the space for? What is their job? Will they find it comfortable? Does it have all of the space they require? | Interview Based on needs Based on needs Based on needs Based on needs | Primary Primary Primary Primary Primary |
| ETHICAL ISSUES | How will I give them more privacy? How will I give them more space? Will they enjoy their time at home more? | Based on the design Based on design Based on needs | Primary Primary Primary |
| SAFETY | Is the pod stable? Are the materials used appropriate for the weather? Are the materials safe for building a pod? Will the loft be made of appropriate material? Are there any safety hazards? | Based on design Research Research Based on design and research Based on design | Primary Secondary Secondary Primary/Secondary Primary |
| ENVIRONMENTAL | How will it affect the environment around them? How much natural resources will be needed? Is building this pod going to cause any pollution? If it does what kind? | Research Based on design Research Research | Secondary Primary Secondary Secondary |

RESEARCH – TARGET USER PROFILE

Mary Reyes

Lives in: Doha, Qatar

From: Philippines

Gender: Female

Monthly income: 4000-5000 QR

Job title: Nurse

Interests: Cooking, Baking and Zumba

Works 6 days a week and gets 1 day off (Friday). On her day off she likes resting at home and watching a movie usually with friends. She also likes to speak to her family back in the Philippines. She enjoys cooking and baking on her day off.

She has a bike that she rides to work somedays. She lives with four other people and wants a bigger space to practice her zumba and also wants more privacy



All of the information I have helps me with designing the pod so that I know what she needs, what she enjoys doing and what she wants so that I can incorporate it into my design for her. For example because she enjoys cooking and baking I want to give her a bigger kitchen or at least a kitchen that is easy to work and move around in so that she can cook whenever she can. Another example is her having a bike this way I would need to give her a place to keep her bike when she isn't using it.

RESEARCH – POD ANALYSIS 1

Pictures of the product and the websites used are on the next slide.

The pod is called "The Sweet Pea Tiny House". It costs \$79.00, this price somewhat reasonable due to the size of the pod and what it includes inside it, and the materials used to build it (wood). I think it cost around \$300-\$500 to build because it doesn't take up much space and is only 135 sqm, the wood is probably what cost the most, as well as adding electricity and water and everything in the bathroom.

The product looks good on the inside and the outside, I think this is because the outside doesn't appear messy and has a nice french door and a couple of windows to tie the look together. The inside looks nice because the way they have utilized the space and added a loft gave it a cozy organized feel and again the windows allowing a lot of light into the house also gives it a good look. I think it makes good use of texture with the built ins and the style of the wood, the colour on the outside is used very well and gives it an attractive look, but the colours on the inside aren't really used enough because the walls, the roof and the shelves are all the same colour there is only colour in one or two places and I think the shelves should at least have a different colour from everything else. I think it has a good quality finish on the inside and the outside because although the colours on the inside might look bland the style of wood gives it a better finish especially on the outside because it doesn't clash with the roof it actually compliments it, the pod also has a little porch on the front giving it a more sophisticated look. The shape is like a normal house you would usually find in parts of England and some other places, it has a mini porch and a few windows, I think it is shaped this way because this is a kind of modern style house and is durable in rainy weather because it was built for someone who lives in Portland, Oregon.

The pod is very comfortable to use, it has the right amount of space for around 3 people, it has a lot of storage, a kitchen and a small bathroom that has everything you need, it even has a window seat near a shelf with books. I think the designer has considered many of the ergonomics and has also considered who they are making this pod for, the person who this pod is built for is hoping to grow their family and so the bed in the loft was made to fit two people and the window seat can also be used as a bed for a kid. Entertainment was also considered with the books and that the pod was built in a neighborhood filled with many similar to it. I think if you were to increase the size of the pod you could fit a few more things in there for example possibly another very small bed or a window seat or couch that can be extended into a small bed or even make the kitchen a bit bigger. If you were to decrease the size it may not fit 3 people to live in it but it would probably only take 1 or with an exception 2 to live in the pod. It would definitely work even better if the size were to be increased.

The pod is a small living space it has a small kitchen, a bathroom, a small living area, a wardrobe, a little miniature room and quite a lot of storage space and it has enough space for 3 people to live in it. It does its job well also sheltering the people who live in it in a nice cozy space. I think it could be improved if there was a bigger closet because of the amount of people it is made for and maybe a bed that is extended from the window seat but other than that I don't think there is much to do for it to be improved functionality wise. Yes the pod is portable it has 4 wheels and a hook to attach it to a car.

The materials used to build the pod are prefabricated and then brought to the site. It is built by someone following the design plan and using a manual to put it together using the materials and tools. It is not that easy to assemble as you have to make sure that it is all done right so that it doesn't collapse and stays stable and so that it is actually portable.

I think the designer has considered all of the safety aspects and has designed the pod in a way where there is a good amount of privacy and it is built very stable so that it can be moved from one place to another by car without having to be taken apart, the pod isn't so squished together so that you trip over everything. People this built for is a family meaning people of all ages so this pod is quite safe for all. The parts have been joined together with tools meaning nails and bolts and things like that are holding it together along with support beams and a base to hold the pod on the wheels. The pod meets safety standards and has privacy, the doors can be locked keeping it more secure and making the person living in it feel safer.

The product doesn't have much of an impact on the environment other than the trees used to make the wood and the amount of water and electricity needed for the person/people living in the pod. Once the pod is not needed it can be taken apart and the different materials can be recycled or the pod could be given to someone else. The design is quite eco friendly because it doesn't take up any space and once it isn't needed it can be recycled because most of the materials it is made of are reusable.

The product is designed for a woman who wants to start a family but in a nice and cozy space. They would live in the pod because it was designed based on what they want and it is made for her to start a family and have 3 people living in the pod. I don't think it will have much of an impact other than on how they utilize the space that they have and how to live with other people and share things with them. The product is promoted with pictures on a website and it attracts customers who are interested and want to live in a pod.



RESEARCH – POD ANALYSIS 2

This pod is called 'Jero'. It costs \$6,909. The price seems reasonable due to the size of the pod and the cost of the materials used to build it (ply wood, wood poles, waterproof canvas skin). I think the building cost around \$16,000 because of the cost of the labour to build it, the cost of the materials and paint and the cost of where they built the pod and the amount of space it is taking up.

The product does look good from the inside and the outside. It looks good on the outside because it is well put together and the colours are all neutral and don't clash with each other, the wooden platform it is built onto gives it a better look on the outside. The inside looks good with the furniture because it suits the style on the outside and the window at the very top gives the room the right amount of light that it needs during the day. The use of colour is done very well because the colours don't clash and have one theme going on keeping it all neutral, the texture is really used much except in some areas for example the rope keeping the sheet on top of the pod down, and the rug and blanket on the inside give it a cosier feel. I think the inside has a really good quality finish with the theme and colours, but the outside could be improved because even though it might look attractive it is still a little messy with the rope and black tension straps (even though they are essential to holding the structure together and giving it more stability). It is built to look like a yurt (an old style for huts built by native americans) it is round on the bottom and has a triangular shape for the roof and is placed on a square base to keep it off the ground. The reason for it being shaped like this is not mentioned but I think it is because keeping it stable is easier this way and it should last in rain.

The size of the pod and the way the space is utilized makes the pod comfortable and the type of furniture used in it adds to the comfort. I also think the pod is quite spacious and has a lot of privacy so people outside can't see the inside without actually having to go up to the pod. I don't think many human factors were really considered because there isn't really much to do or anywhere to sit if you invite people over, there isn't a bathroom in the pod and if it gets too cold at night there isn't anything to keep you warm. I think if it were increased it might work better because you have more space to add a bathroom inside and maybe a more comfortable bed setting. If it were decreased it might look better on the outside but there wouldn't really be enough space on the inside for storage and other things like that.

The pod is a small living space it has enough space for an adequate amount of storage, it has comfortable mini bean bags and quite a lot of privacy and a good amount of light. It is a basic shelter for a person to live in and protects you from the rain and other weather conditions. I think it does its job. I think the pod is very functional and if someone were to redesign the interior furniture they could give them a better use of space and more space to store their things. I think the pod could be improved in certain aspects for example a bathroom or at least a sink with clean running water since it is an outdoor pod they would need to keep their hands clean, I also think they could give them a more comfortable space to sleep on even if it was just a mattress with a couple of pillows and a blanket, the final thing they could improve is the storage because in the pictures there is no sign of much storage other than a suitcase that has 1 or 2 rugs or blankets. The pod could be portable if you knew how to take it apart and put it back together but the bases is not portable so you would need another base.

The pod was prefabricated and brought on site. They put marine-grade plywood for the walls and the roof poles, the roof is made of waterproof canvas which is held down by polyester rope, tension straps were put around the plywood walls to hold the structure together and keep it stable. The assembly is very simple because it does not need any tools but as long as you have the materials you can build it with the help of another person.

The designer has built the pod off the ground making it harder for animals and things you would find outside to get in, they made it so that it has a lot of privacy and you can't see inside the pod, and it should last through different weather conditions but there is a slight chance that it does not. People who would end up living here are most probably at the ages of 18 and older but nothing older than something around the age of 50. The materials have been put together adequately and I don't think it would survive in the outdoors for long because it is only held together using rope and tension straps. I think the product meets most safety standards but the door doesn't seem to have a lock or a secure way of closing it and keeping it closed.

I don't think there is much of an impact other than where the product is built which seems to be in a forest or a field meaning they probably cut down a couple of trees to build it. They obviously needed wood which comes from the trees that have been cut. Once the pod isn't needed it can be taken apart and the pieces used to build it can be used for something else. It seems eco friendly because it doesn't take up much space, due to its size it doesn't need much electricity or water because you can find the water at a stream and it is only one or two people living in it so the use of electricity won't be much also the window in the roof lets a lot of light in during the day.

The pod is designed for people who enjoy the outdoors and like the bohemian style and are also older than 18 and capable of taking care of themselves in the outdoors. They could be using the product to go camping or they are using it so that they live in the outdoors for a while with a different kind of lifestyle or they could just enjoy living in the outdoor world which is why they would use it. I think it'll have a big impact because it isn't a normal house or pod it doesn't have everything you need so you have to improvise with what you have and learn how to live without everything being given to you and it is in the outdoor world where there are animals and things like that you need to watch out for, there isn't any light at night so they would also have to make do with that. It is promoted by the people who built it using pictures and explanations of what they used, its size and how much it weighs. They took pictures of the furniture inside and showed the area it is built in.



RESEARCH – POD ANALYSIS 3

This pod is called the “Kenjo Outdoor Cottage”. The cost is not mentioned anywhere. I think it cost around \$4,000 - \$7,000 to build because of the material used to build it, the electricity they need to include in it, the furniture cost and the tools and paint. The sliding roof also adds more to the cost which is what makes it quite expensive.

The product looks good because the colours go very well together and it gives you a nice modern feeling around it, the hammock is a comfortable element including the couch in the cottage. The glass windows and door also grab the person's attention because you can see the colour and how well it all works together. The pods use of colour and texture is done very well, the colour gives it a modern look while you can still see the wood being connected through the paint giving it a nice texture, and the paintings inside along with the hammock tie the whole look together. It has a really nice good quality finish with the glass walls and the brown paint which is what helps give it such a modern effect. It has a somewhat strange uneven shape which adds more to the element of it being modern there isn't any particular reason it is shaped like this other than the modern look.

The pod seems comfortable to use and adds a nice touch to the backyard of someone's house. The designer has considered the ergonomics needed for such a pod because it has been built in someone's backyard to attract people to go and sit outside or enjoy their time on the hammock. The sliding roof gives it a more enjoyable element because you can sit outside while it is raining but still have something over your head and you can sit outside while the sun while your roof is still covering your head. If you increased or decreased the products scale it doesn't really affect much other than how big of a couch you can fit or if you could put the hammock but other than that it wouldn't affect the look or the modern style. I also think it doesn't need to be any bigger or smaller because it is the perfect size for what it is intended for.

This pod is meant for the outdoors in someone's backyard for people to sit there and socialize and even rest. The pod has a very nice clean look to it and attracts visitors and people who live in the house to go outside. If there was anything to improve it would probably be to add another couple of chairs or a little snack bar for when people are outside and want something to eat or drink. This pod is not portable it doesn't have wheels and cannot be attached to a car and it cannot be taken apart easily or put back together easily.

If you buy the cottage it comes pre assembled making it simpler on the consumer not having to do much work other than furnishing it. There is nothing about the assembly other than the fact that it comes pre assembled.

Many different people of all ages can use this product because there isn't anything very unsafe about it unless someone too young is trying to move the extendable roof. The different parts have been joined together safely to keep the structure stable. The product meets safety standards and won't affect anyone in any dangerous way.

I don't think there are any impacts on the environment other than the trees that were used to make the wood for this pod and the energy used for the light in the pod. When the pod is not needed it can be given to other people to use in their backyards or to use for something else. The design is pretty eco-friendly and doesn't cause much damage to the environment.

The product is designed for people who enjoy sitting in their backyard with their friends or to sit and read, they would use the pod because they want to get out of the house sit in their backyard and enjoy themselves. The pod is promoted through many different websites using pictures and explaining what it is used for, what it is made of and how big it is and through showing some of the interesting elements it has.



DESIGN BRIEF

How to Write a Design Brief

With the information you know about the project, write a design brief. Remember the brief must be short and to the point. It must explain what you will be making and why?

- Write a detailed statement along with 4/5 main points to consider for what you need to do to create a solution for your problem. The Design Brief is a short statement of what you are going to make, why you are going to make it, and for whom you are making it for. It should be an open ended statement.
- **MAKE SURE YOU COVER: WHO, WHAT WHY WHERE WHEN, HOW???**

A good Design Brief might be something like this...

"Teenagers have very busy lives. School, family and social activities mean that being punctual is very important.

I will design and make a wall clock that will be appealing for teenage girls. It will be a modern design and will be suitable for a teenage girl's bedroom. Because the design will appeal to teenage girls, then they will be more likely to look at it, read the time and therefore not be late.

A poor example would be something like this:

" I will make a football clock from plastic and print out pictures of players to use as the numbers."

Migrant workers in Qatar aren't treated as fairly as many of the other civilians are treated, Their living conditions are very poor and do not meet the criteria of standard human rights. It is important that they are treated fairly and have an adequate lifestyle and place to call home out of their country.

I will design and 3D print a living pod for a migrant worker, their pod will include essentials of what a person usually needs in a house but the pod will also include space for zumba because they enjoy practicing it. The pod also may include small in-wall speakers so she has something to use for her zumba music when practicing. It will also have a bigger and easier kitchen to move around in because they enjoy cooking and baking. It will have a mix of a minimalist and modern style.. They will enjoy the pod more and be able to call it a home when it includes space for what they enjoy doing.

DEVELOPING IDEAS

Criterion B:



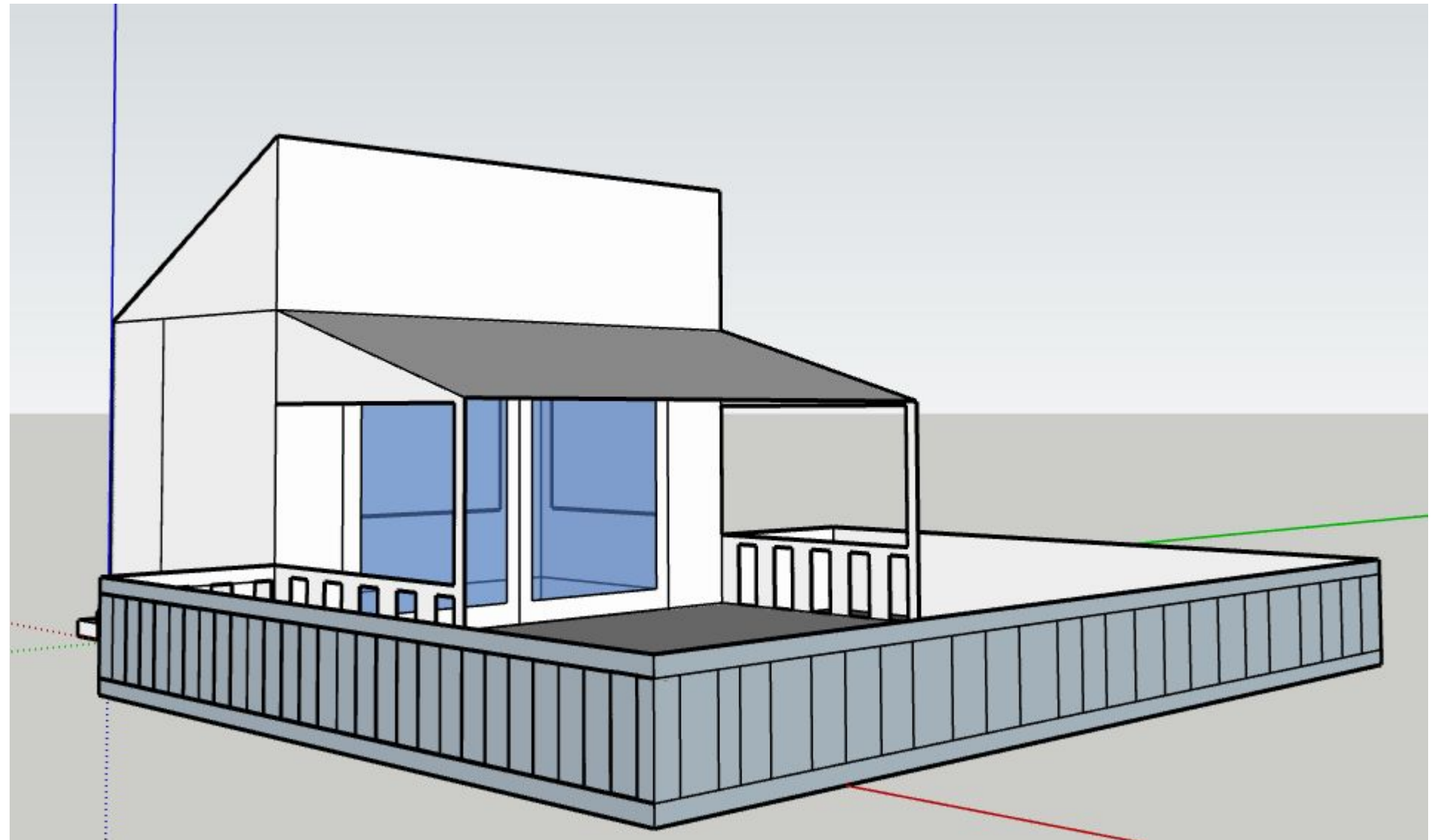
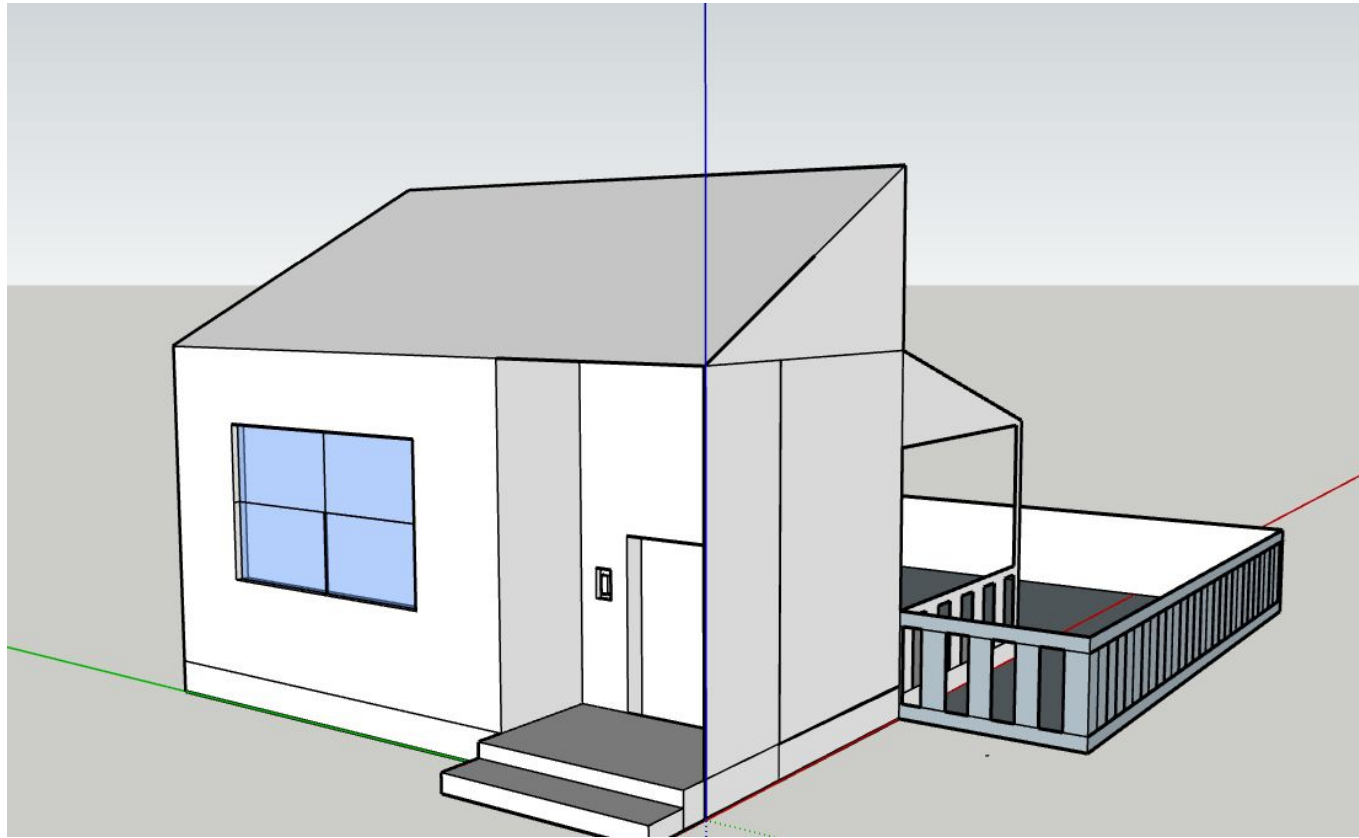
SPECIFICATION

| Generic Area | Specifications | Reasoning |
|-------------------|--|---|
| <i>Cost</i> | It will not contain expensive furniture. | So it doesn't raise the cost of the pod by that much. |
| | The pod should have a reasonable price. | So it matches her needs and so that she can afford it. |
| | The pod could have solar panels. | To save energy and make living in the pod cost less. |
| | The materials could be kept as a good cost. | So that building the pod and getting the materials don't have to be expensive and possibly raising the cost of living in the pod. |
| <i>Aesthetics</i> | My pod should have at least 4 windows | To let in more light and reduce the consumption of electricity and also for aesthetics. |
| | My pod should have a room that is built on a loft | To make sure the pod has more space for other rooms and essential things. |
| | My pod will be a mix of Minimalistic x Modern design | It has a nice simple design to it and makes it easier to design. |
| | My pod must have a garden | A bigger space for her to relax and spend time with friends. |
| | My pod must have a patio and porch. | To give the pod a more sophisticated look as well as a place to sit when she is outside enjoying the weather. |
| <i>Function</i> | My pod will could have Stairs with drawers. | More storage space because it is not a big space meaning all of it has to be utilized. |
| | My pod should have a place to park her bike. | She rides a bike to work everyday meaning she needs a place to keep it. |
| | My pod will have a couch bed. | If her friends come over and maybe have a sleepover |
| | My pod must have pocket doors | To help make more space in the pod |
| | The pod will have a bed in her room | |
| <i>Ergonomics</i> | The pod should have a good space for storage. | Because it is a small pod she needs as much storage as we can give her without making the pod feel crowded. |
| | The pod will be 5 meters in width and 10 meters in length. | The pod has to be 50 square meters. |
| | The ceiling must be 6 meters high. | To fit the loft in without it being too low. |
| | | |

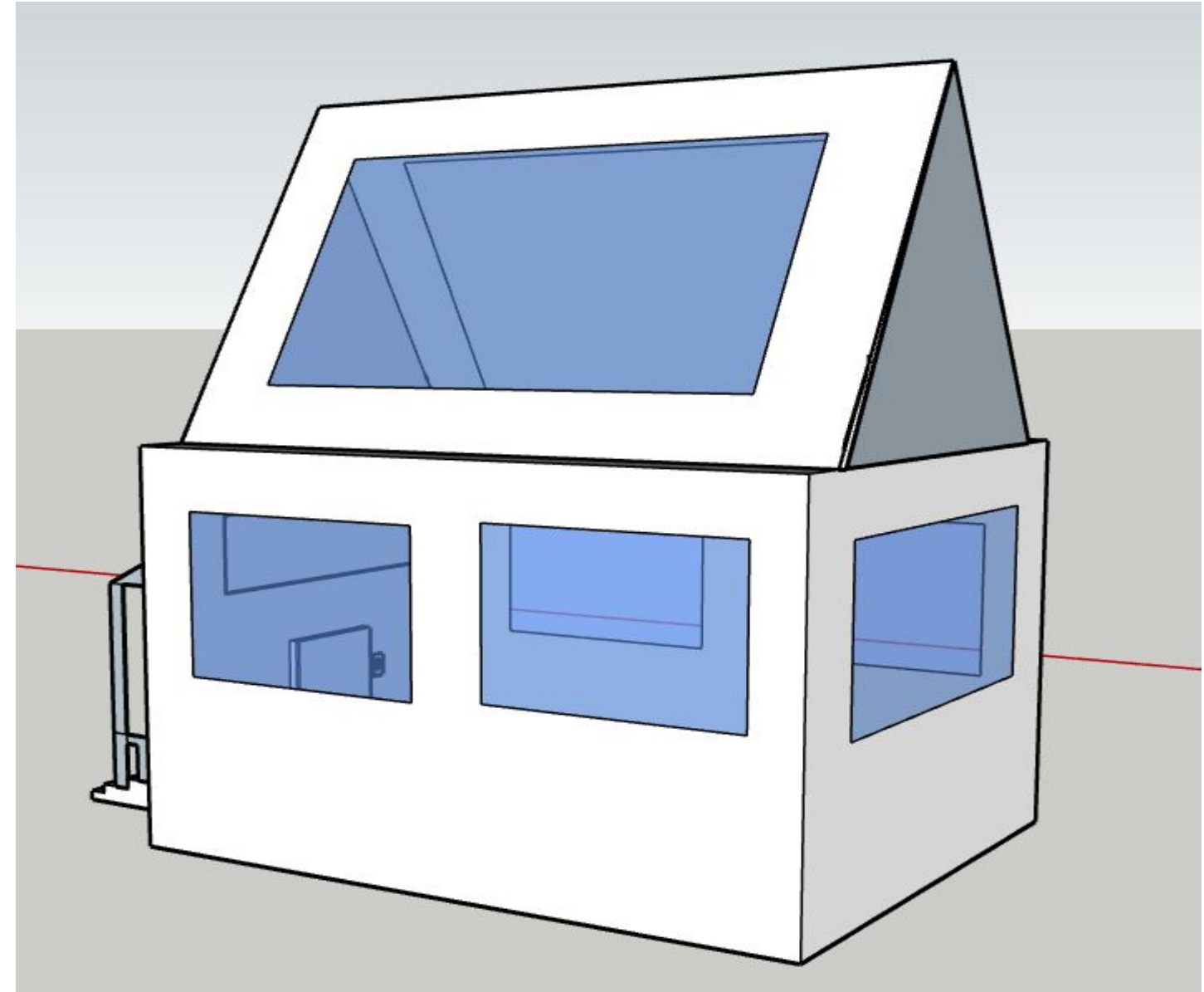
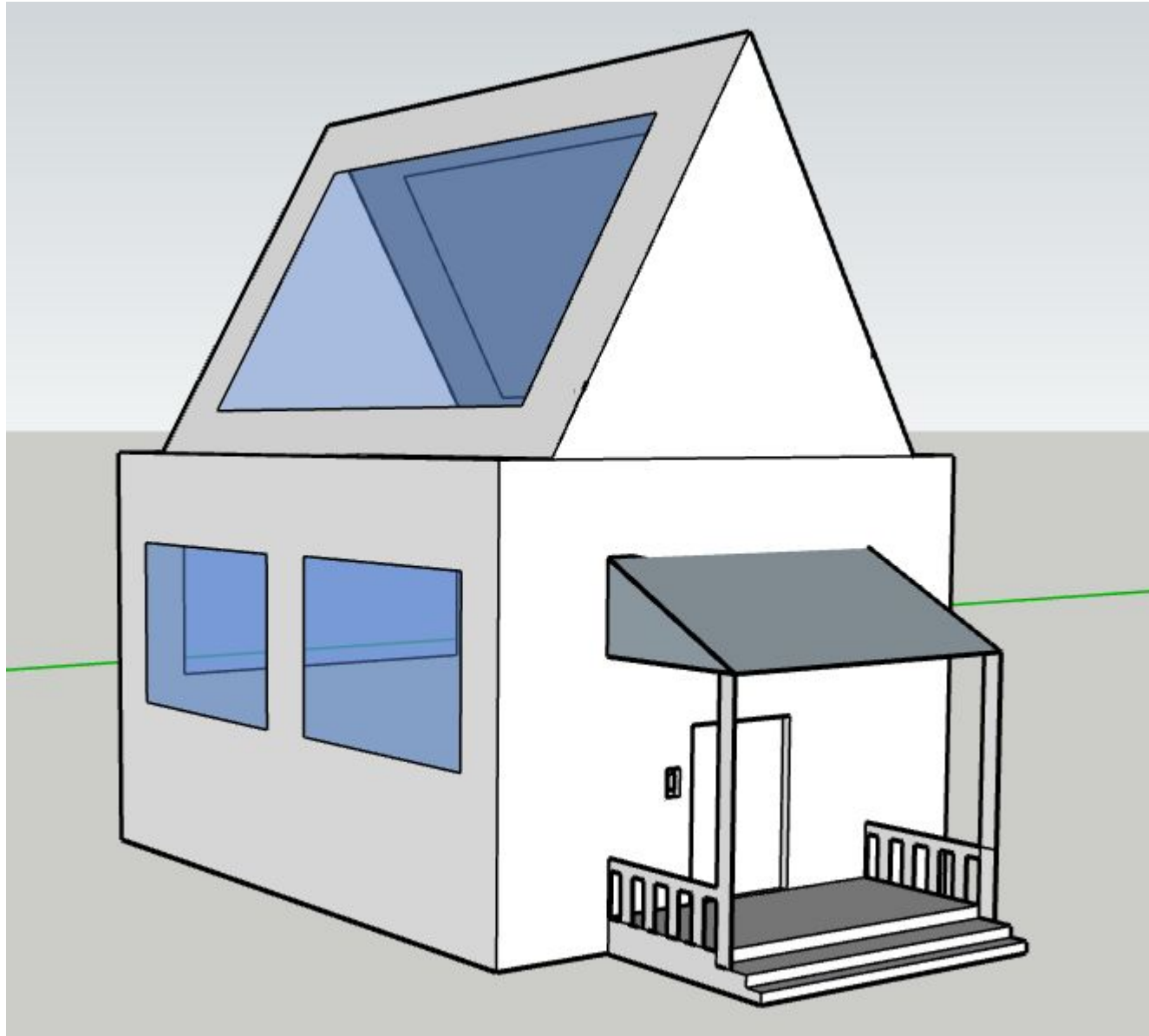
SPECIFICATION

| Generic Area | Specifications | Reasoning |
|---------------|---|---|
| Manufacturing | The Pod will be built on site | It is not portable so it will have to be built on site |
| | The walls must be made out of concrete | So that the pod can be sustained in different weather conditions. |
| | | |
| | | |
| Materials | The materials used for the walls on the outside will be concrete, brick and redwood | This is so that the pod can be sustained and not get damaged easily in different weather conditions. |
| | The walls on the inside will be made using redwood. | To keep the modern and minimalistic style |
| | The redwood walls will be stained grey. | This is that the colour of the some of the walls match with the minimalistic look but still have the modern look. |
| | Most of the furniture will be made out of wood and fabric or metal. | This is so that the furniture is not as expensive. |
| Environment | My pod will have a recycling bin | This is to make it more eco friendly as she enjoys cooking so she can recycle what she throws out or turn some of the food waste into compost for her garden. |
| | My pod could have solar panels. | This way it uses less energy produced by fossil fuels and more that is produced naturally. |
| User | My pod will big kitchen space | Mary enjoys cooking and needs a functional kitchen. |
| | My pod will have a big living room. | Needs space to do Zumba and speakers for music.Mary enjoys Zumba and wants more space to do it. The speakers are so that she can do zumba with the music as well. |
| | My pod must have a decent amount of storage. | She needs a place to park her bike, keep her clothes, hair products, makeup and all other essentials. |
| | My pod should have a good sense of privacy | This was one of her problems where she used to live with 4 people so to make it feel more cozy it should also feel private and safe. |

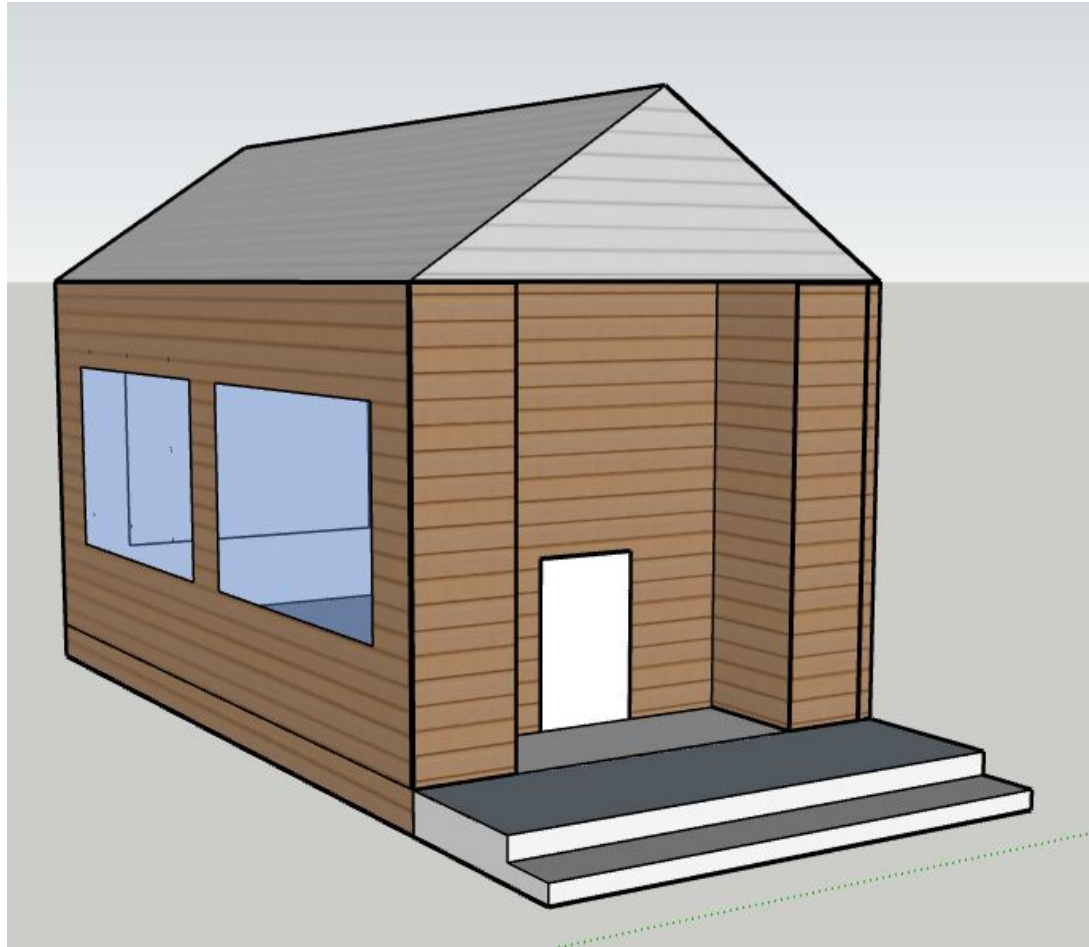
DESIGN IDEA 1



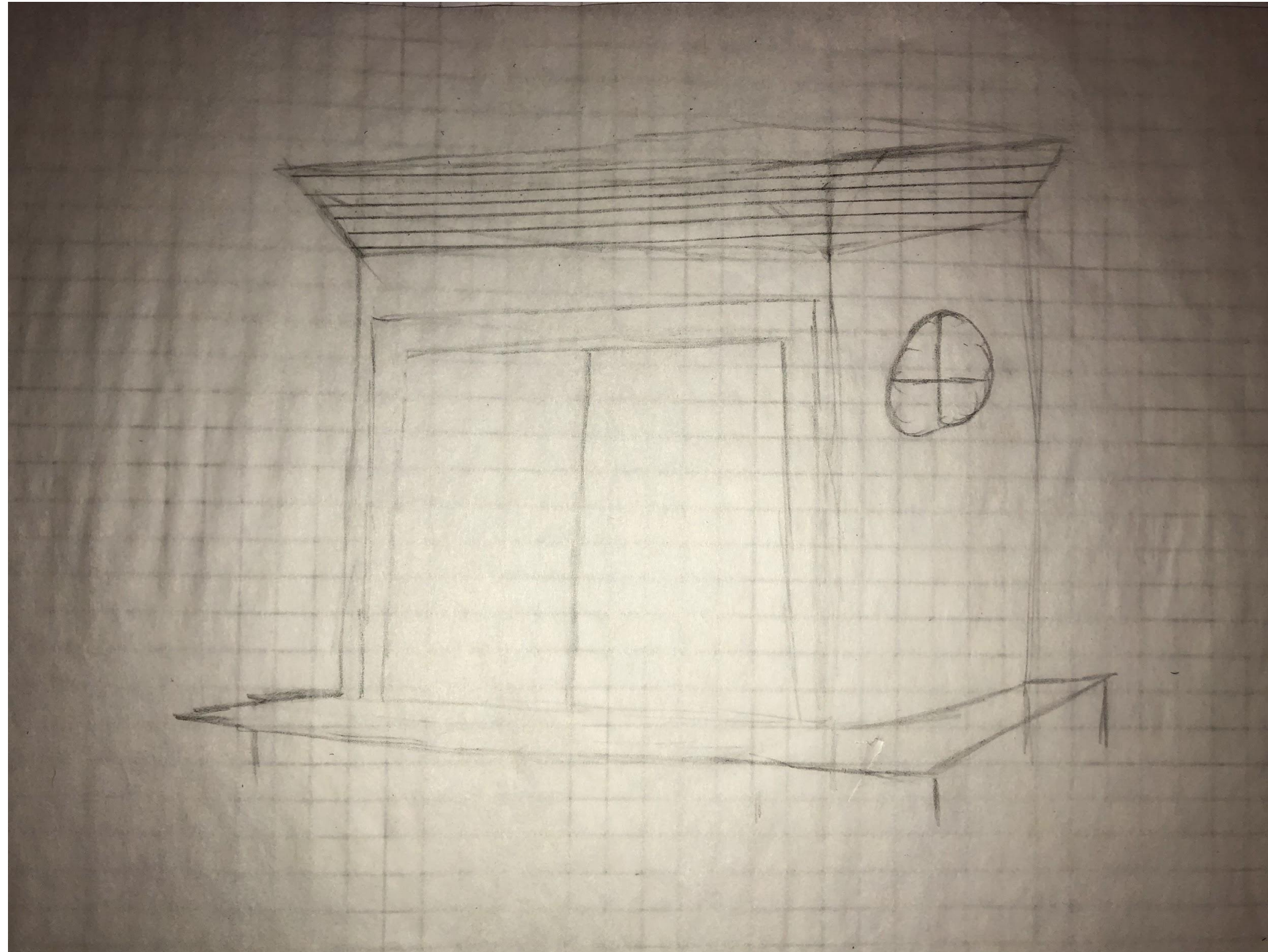
DESIGN IDEA 2



DESIGN IDEA 3



DESIGN IDEA 4



I did this design on paper because my sketchup stopped working (trial timed out). It didn't really turn out how I wanted it to.

Design Annotations

| Specification | Living Pod Design 1 | Living Pod Design 2 | Living Pod Design 3 | Living Pod Design 4 |
|---|--|--|---|--|
| Aesthetics | I think this is a good design because in the pod she has space to work, sleep, eat, hang out with friends, do zumba and more, outside she can ride her bike, do zumba, garden all in good weather conditions. One good point is that the pod is spacious especially because it has a lofted part keeping her room on a second floor in a way. A bad point is how the roof is shaped because the bed will be so high up when she stands up there is a possibility she hits her head on the roof. The main colors for my pod will be white and black for the minimalistic look and I will use redwood to add the modern look on the inside these are the main colours for all of my pods. I was inspired by images of pods I had seen on instagram and on the internet when we were researching and analysing them and from what mary needed for her pod. | I think it is a good design because it has the right amount of space in the inside to add a loft and for a big kitchen seeing as Mary needs one because she likes to cook and there is also space for her to practice her Zumba. A good point about this pod is that the part where the loft would be is quite spacious and she had space to add more than just a bed. A bad point about this design is that there isn't enough space for everything because there is no garden for her to enjoy the weather outside if it is nice and also there are too many windows leading to less privacy which is the opposite of what mary wants. The main colors for my pod will be white and black for the minimalistic look and I will use redwood to add the modern look on the inside these are the main colours for all of my pods. I was inspired by pods I had seen online as well as Mary's needs in her pod and on the outside of it. | I think this is an ok design because it is basic but it has a lot of space on the inside although there is no garden and it's a very simple design. One good point is that it is sustainable in different weather conditions but sometimes might be difficult in the rain because of the wood on the walls outside expanding when they get wet. Another good point is how spacious and the pod is and how high the ceiling is leaving a lot of space for the loft. A bad point is how the outside of the house is very plain and there isn't a proper porch where you can sit and enjoy the good weather, on top of that there isn't a garden or a patio either. The main colors for my pod will be white and black for the minimalistic look and I will use redwood to add the modern look on the inside these are the main colours for all of my pods. This design wasn't really inspired by anything because it is such a simple design. | I think this design is fine because it has a very modern look to it and feels like a cozy place to live, but because it doesn't have a loft her room will end up taking more space making all the other rooms sizes have to be smaller so that everything fits. A good point is that this design is consistent with the theme or look that I am going for with my final design, it also uses solar panels on top saving energy and has a patio that goes around from the entrance to the wall next to it. A bad point is that the design's roof is tilted inwards meaning if it rains there are very high chances the rain gets stuck there and if it gets too heavy it could possibly break the roof. The main colors for my pod will be white and black for the minimalistic look and I will use redwood to add the modern look on the inside these are the main colours for all of my pods. I was inspired by images that I had seen online of living pods. |
| Manufacture | The pod will be built on site by builders and the wood and other materials used to prepare the pod will be made in a factory. The pod will be made on site because it is not a portable pod and will be difficult to move from one location to another. | The pod will be built on site by builders and the wood and other materials used to prepare the pod will be made in a factory. The pod will be made on site because it is not a portable pod and will be difficult to move from one location to another. | The pod will be built on site by builders and the wood and other materials used to prepare the pod will be made in a factory. The pod will be made on site because it is not a portable pod and will be difficult to move from one location to another. | The pod will be built on site by builders and the wood and other materials used to prepare the pod will be made in a factory. The pod will be made on site because it is not a portable pod and will be difficult to move from one location to another. |
| Environment | One of the environmental impacts is that we will use wood which comes from trees to build the house. We'll be getting the wood from a tree farm but this way we are still cutting down trees to build the pod. I will incorporate solar panels into the design to make the energy for the light when she needs to use it this way we are saving energy and using a less expensive method to give the pod electricity. | This pod will mainly be made out of wood and wood comes from trees which have to be chopped down in order to make the planks, affecting forests and tree farms. This pod will not be using solar panels making living here more expensive as she has to pay for electricity now it is also an environmental impact because the pod will be using energy but not the natural type that comes from the sun. | This pod is made entirely out of wood and steel except the furniture and roof (they also use concrete and fabric) meaning many trees were cut down within the process. This pod will not be using solar panel to produce electricity, it will be using fossil fuels like most of my designs. The electricity running on unnatural fuel has many effects the first one being the gases let out into the atmosphere to produce the fuel and the second on being Mary having to pay more for the electricity bills. | This pod is made mostly using wood which come from trees that have to be chopped down and turned into the planks used to build them. The pod uses solar panels to produce the energy for the house meaning the energy it runs on is cleaner and costs less . The solar panels will be on the roof of the pod. |
| User Own Question: Would the target market feel comfortable living here? Why? | The pod meets her needs as it will have space for her to practice Zumba, it will have a functional kitchen so she can cook and bake in her free time as she enjoys it and she'll be living on her own meaning she has privacy and can come home whenever without worrying she'll wake anyone up or disturb anyone, she can also invite friends over and watch movies and maybe have sleepovers since there is a living room with a decent TV and a bed couch as well. My peers think this design is a good design for Mary as it is spacious and they think she'll enjoy living here if the designs ever actually become a reality. I think she'll feel comfortable in this design because it has windows but the have glass that people can't see through, she has space inside and outside to practice Zumba, she has a functional kitchen to work in and a garden protected by fence. | This pod meets most of her needs as it has space for her to practice her zumba, a kitchen that is big and functional, she's living on her own meaning she has privacy but there are a lot of big windows meaning it is not as private as she would prefer. She'll have her own room with a lot of space. Another one of the problems is that as she has no garden and only her living room there isn't much for her and her friends to do when they come over. My peers think this is a good design but it seems like a boring one because it has a kind of basic design but the roof is a bit more creative. I don't think she'll feel very comfortable in this pod as the windows are very big and her room could feel tight depending on what she puts in it. | The pod meets some of her needs for example it is spacious on the inside, meaning she can practice her zumba, she has a big kitchen giving her a place to cook and bake because she enjoys doing that, there is a decent amount of privacy giving her a comfortable environment to live in. She has her own room in the loft with her bed, wardrobe and anything else she needs. The pod should also have a decent amount of storage. My peers think this is a good design as it meets most of her needs but it seems like a very basic dull design, she cant enjoy the outdoors in this one as much as she can in the other pods. I think she'll find it comfortable living here because it has a good amount of privacy and space, she can also enjoy her time when her friends comeover. | This pod adequately meets her needs, it would be difficult to fit everything into the pod as it is all on one floor and there is no loft to leave space for a bigger kitchen or living room. There is a patio for her to enjoy the weather and sit on, she could also decorate it and cook on it if she has barbeques. My peers think this is a very modern simple but aesthetically pleasing design but they think that it should be bigger so that the design can meet all of her needs as well as have space for her and her friends when they come over. I think she will find living in this pod cozy and comfortable but wouldn't enjoy the lack of space the pod has and might want a bigger bedroom. |

Design Annotations

| Specification | Living Pod Design 1 | Living Pod Design 2 | Living Pod Design 3 | Living Pod Design 4 |
|--|---|---|---|--|
| Safety | This design is safe to live in as there isn't really anything that could hurt anyone if they lived in it and it has stairs with railing and a loft with railings as well to keep anything from happening. There is also a garden with a fence to keep people from entering. The only unsafe thing about it is the way the roof is shaped in the design because if the loft isn't at the right height she could hit her head on the roof when standing up there if she is not careful. | This design is safe to live in because there isn't anything that can cause injuries since the stairs to the loft and the loft itself will have railing to prevent her from falling. One of the unsafe things about the house is where the windows on the roof are placed because there is a chance they shatter in the rain so we have to make sure it is a strong sustainable glass. | This design is pretty safe to live in. It has nothing in it that can cause a serious injury and for safety both the stairs and loft will have railings to prevent anything from falling. It may not be as safe as the pod with the fence around it but the door is very secure. The only problem is the material it is made of on the outer walls (wood) it can expand in the rain and catch on fire easily so she has to be careful for that. | This design is sort of safe the big double door is made of glass which is not very secure and the roof can keep water on there and if it gets too heavy it could start leaking or collapse. There isn't anything else that is unsafe about living in this pod because it doesn't have a loft which could be dangerous if it had no railings or something to keep anything from falling. |
| Material | My pod will be made out of redwood, concrete, brick, steel and will have paint (black, white and one or two different colours). It will be made out of mostly natural materials and some materials made in factories. This is the same for all of my designs. | My pod will be made out of redwood, concrete, brick, steel and will have paint (black, white and one or two different colours). It will be made out of mostly natural materials and some materials made in factories. This is the same for all of my designs. | My pod will be made out of redwood, concrete, brick, steel and will have paint (black, white and one or two different colours). It will be made out of mostly natural materials and some materials made in factories. This is the same for all of my designs. | My pod will be made out of redwood, concrete, brick, steel and will have paint (black, white and one or two different colours). It will be made out of mostly natural materials and some materials made in factories. This is the same for all of my designs. |
| Function Explain a bit about how your design will work? Eg: will it be made with a car parking space? Underground? Stairs? How will your user access the pod? | There will be a small garden space with a porch in the backyard for when she invites friends over to sit outside in the nice weather and maybe have barbecues. To enter the pod there is a miniature porch on the front of the house with the door. Once you enter there are stairs in front of you, every other step will have a drawer in it and on the side of the stairs there's a sliding door and behind the sliding door there is a place to keep her bike, and then when you turn the living room is there with a couch that can also turn into a bed and one or two bean bags and chairs, the bathroom is next to the living room where the TV will be placed on top of a console and the bathroom which has a mini cabinet that has towels and other products can be accessed through a pocket door and there is also a laundry room where she can do all her laundry these are both in one room. The kitchen is next to the living room as well and has a lot of space, storage and is very functional, and in the kitchen there is a door to her backyard which has the porch, the kitchen also includes a table with 4 chairs for her to eat at. She can park her bike in the part behind the stairs or on the porch in front of the house. If you go upstairs to her room her bed is there, with a wardrobe and dresser as well as a mini desk for her to work on as well as one bookcase for her to decorate or keep books in. | You enter the house from the porch that is on the front. There will be a living room with a couch that can become a bed, A functional kitchen which is not as spacious as the one in my first design but it still has a good amount of storage. The stairs to the loft will have drawers and will have a place inside for her to keep her bike. The doors in this house are pocket doors as well except the entrance door which opens into the house. Her room which is accessed by the stairs will have her wardrobe on one side and her bed on the opposite side because the loft has enough space for only that much furniture, it is restricted by the shape of the roof.. The bathroom has a washing machine and a dryer inside of it and a couple of shelves with towels on them, and a drawer with other products. Next to the bathroom there is a small dining room with a table that has 4 chairs. | The house is entered through the door at the front that opens into the house. The first thing you see across the room is the kitchen that has a good amount of space and storage as well as a dining table. Next to it there is a living room with a couch, 2 chairs and a TV. There is a big bathroom with the washing machine and dryer. Then there are stairs leading up to the loft where her bed is, her wardrobe and dresser are, there is also more than one bookshelf. The stairs also have a little closet with a place to park her bike and keep any extra things inside for example foldable chairs. | You enter the pod from the patio through the double sliding doors. The pod is somewhat a bit crowded because everything is on one floor. The first thing you walk in to see is the kitchen on the other side which is smaller compared to all the other pods but is a suitable size for the pod, next to it is the living room which is also smaller but a suitable size for the pod it has a small couch and a TV. Next to it is the dining "room" with the table and 4 chairs. In front of them there is her room and in her room she has her bed and wardrobe. Next to her room she has a small bathroom with a standing shower as well as a washing machine but not dryer as she can dry the clothes outside on the patio or hang them up in the bathroom. The patio goes around 2 of the walls outside. |
| Ergonomics | On the inside my pod will be 50 square meters. My pod is 1 story but it has a very high ceiling because there is a part that will be lofted 3m high and my ceiling will be 6m high. It is 10m x 5m and it is around 6m tall. | On the inside my pod will be 50 square meters. My pod is 1 story but it has a very high ceiling because there is a part that will be lofted 3m high and my ceiling will be 7.5m high. It is 10m x 5m and is around 7.5m tall | On the inside my pod will be 50 square meters. My pod is 1 story but it has a very high ceiling because there is a part that will be lofted 3m high and my ceiling will be 7m high. It is 10m x 5m and is around 7m tall | On the inside my pod will be 50 square meters. My pod is 1 story. It is 7m x 5m and it is around 3.5m tall. |
| Final Design | The design that I choose as my final design and the one I will use for Mary is design 1, this is because it meets most of her needs, has a modern minimalist style yet it is still simple and is not complex, it meets most of the specifications I had set for my design. There is space for her inside and outside to practice Zumba she can enjoy time with her friends and watch movies and have barbecues and cook because she has a comfortable living room with a big TV and a backyard to barbeque and a big kitchen where she can cook. Overall I think this design is the design that fits mary best meeting most of her needs and most of my specifications. | | | |

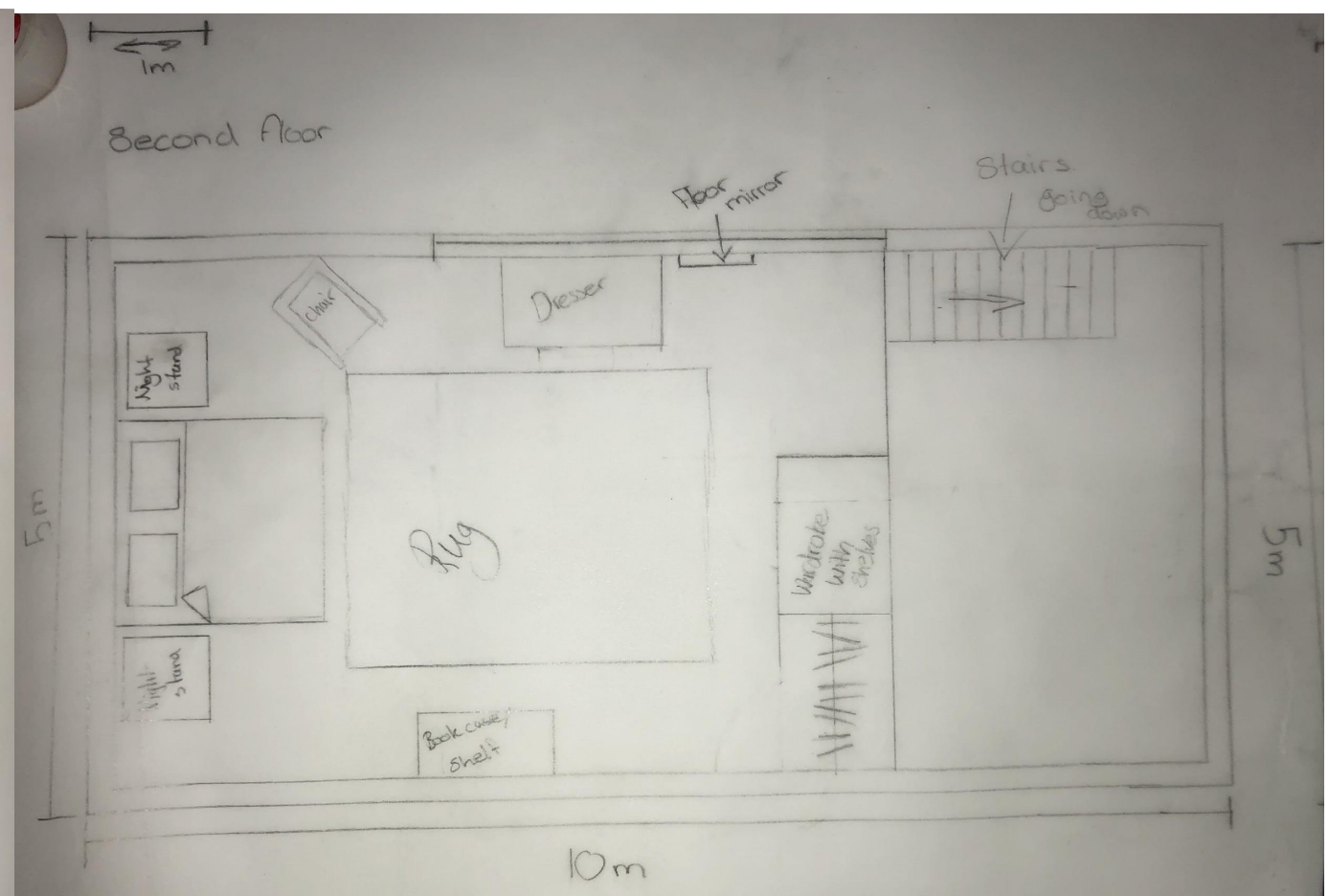
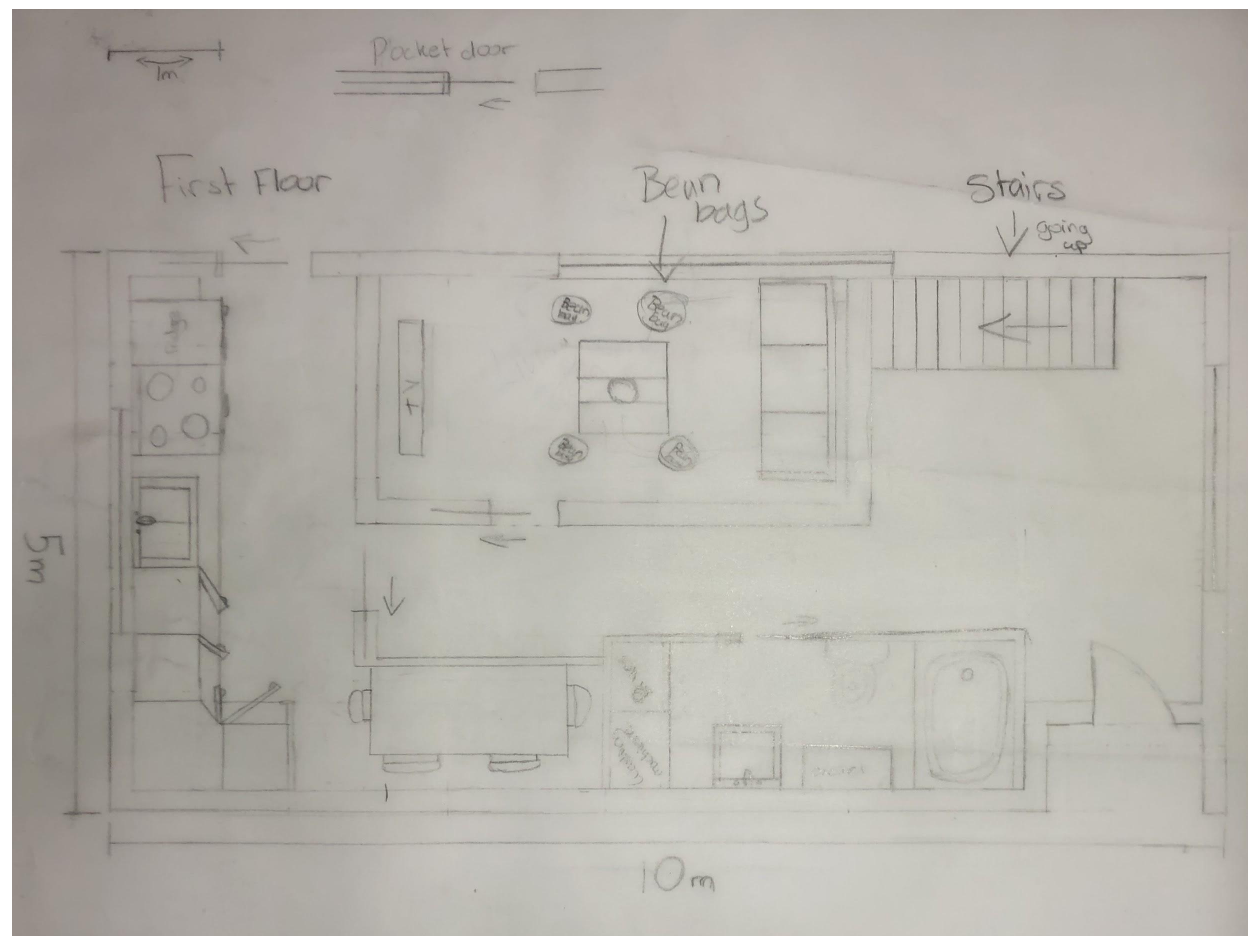
Analysis of Ideas against Specification

| Generic Area | Specification | Has it met the specification (yes or no) | | | |
|--------------|--|--|---------------|---------------|---------------|
| Cost | It will not contain expensive furniture. | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4: Yes |
| | The pod should have a reasonable price. | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4: Yes |
| | The pod could have solar panels. | Design 1: No | Design 2: No | Design 3: No | Design 4: Yes |
| | The materials could be kept at a good cost. | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4; Yes |
| Aesthetics | My pod should have at least 4 windows | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4: Yes |
| | My pod should have a room that is built on a loft | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4: No |
| | My pod will be a mix of Minimalistic x Modern design | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4: Yes |
| | My pod must have a garden | Design 1: Yes | Design 2: No | Design 3: No | Design 4: No |
| | My pod must have a patio and porch. | Design 1: Yes | Design 2: No | Design 3: No | Design 4: Yes |
| Function | My pod must have Stairs with drawers. | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4: No |
| | My pod should have a place to park her bike. | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4: No |
| | My pod will have a couch bed. | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4: No |
| | My pod must have pocket doors | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4: Yes |
| | The pod will have a bed in her room | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4: Yes |
| Ergonomics | The pod should have a good space for storage. | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4: Yes |
| | The pod will be 5 meters in width and 10 meters in length. | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4: Yes |
| | The ceiling must be 6 meters high. | Design 1: Yes | Design 2: No | Design 3: No | Design 4: No |
| | The pod must have a loft as her room | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4: No |

Analysis of Ideas against Specification

| Generic Area | Specification | Has it met the specification (yes or no) | | | |
|---------------|---|--|---------------|---------------|---------------|
| Manufacturing | The Pod will be built on site | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4: Yes |
| | The walls must be made out of concrete | Design 1: Yes | Design 2: Yes | Design 3: No | Design 4: No |
| Materials | The walls have to be made of concrete. | Design 1: Yes | Design 2: Yes | Design 3: No | Design 4: No |
| | The walls on the inside will be made using redwood. | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4: Yes |
| | The redwood walls will be stained grey. | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4: Yes |
| | Most of the furniture will be made out of wood and fabric or metal. | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4: Yes |
| Environment | My pod will have a recycling bin | Design 1: Yes | Design 2: No | Design 3: No | Design 4: No |
| | My pod could have solar panels. | Design 1: No | Design 2: No | Design 3: No | Design 4: Yes |
| User | My pod will have a big kitchen space | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4: No |
| | My pod will have a big living room. | Design 1: No | Design 2: Yes | Design 3: Yes | Design 4: No |
| | My pod must have a decent amount of storage. | Design 1: Yes | Design 2: Yes | Design 3: Yes | Design 4: Yes |
| | My pod should have a good sense of privacy | Design 1: Yes | Design 2: No | Design 3: Yes | Design 4: Yes |

Floor Plan



CREATING THE SOLUTION

Criterion C:

MAKING – 3D MODELLING



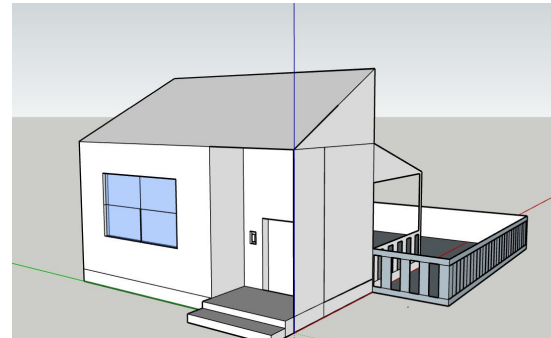
CHANGES AND IMPROVEMENTS

- Added 2 windows on the roof and 2 on the bottom floor
 - I did this because there were no windows on the loft which meant she would have very little natural light entering her room during the day, so to let as much light as possible flood her room I added 2 windows on either side of the roof, and because this is a loft one of the windows will not only allow a good amount of light to enter her room but it will also allow it to enter into the whole house. I added the 2 windows on the bottom because again there wouldn't have been enough light entering the pod making every day activities more challenging especially in the closed rooms with no windows.

- Final Design with 2 windows:



- Original design with no 2 windows on the roof:



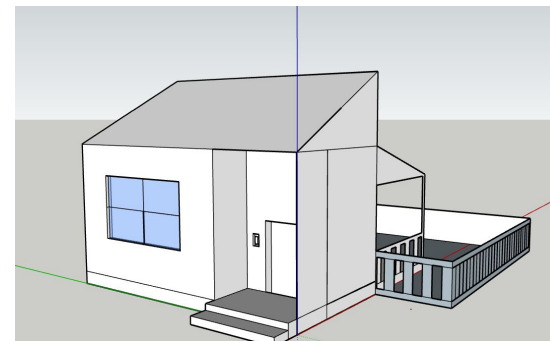
- Removed porch and patio

- I did this because there was not enough space on the front of the house to make a porch so I had to remove it, and I had to remove the patio because again it would not have fit since garden I made as part of my model was not big enough for a patio or porch, and if I were to add them despite the amount of space the garden would have been way too small for her to do anything else.

- Final design without patio and porch:



- Original design with patio and porch:



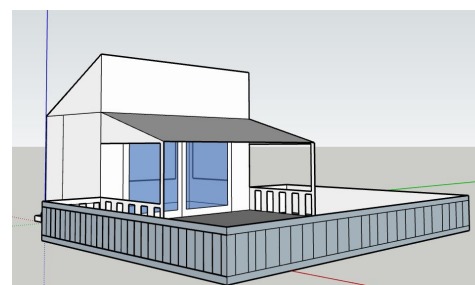
- Removed back door and changed into a window

- This was done because there was no need for the backdoor since the patio was removed and because I had initially forgotten to add a backdoor just as an exit to the backyard rather than the original plan with the 2 glass sliding doors that opened into the patio and garden.

- Final design no backdoor

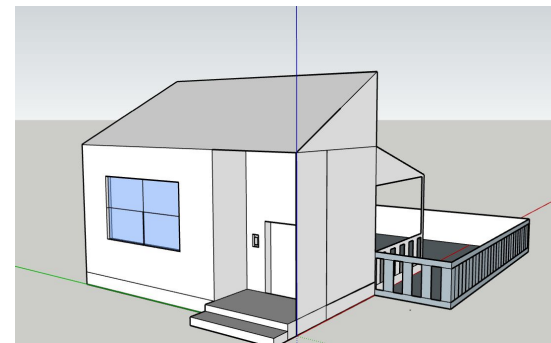


- Original design with backdoor

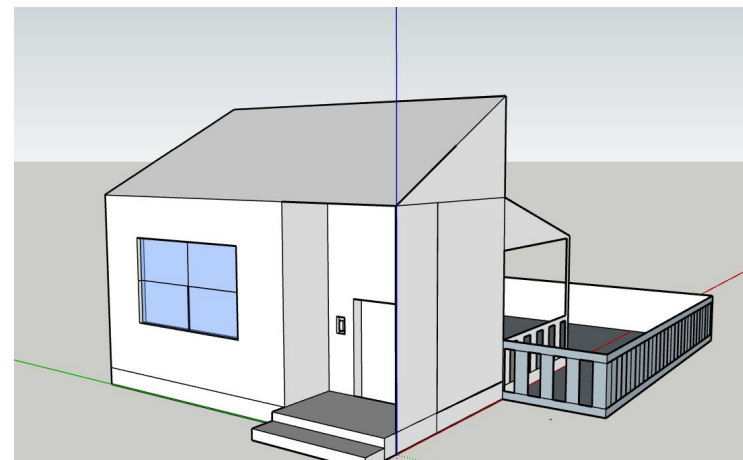


CHANGES AND IMPROVEMENTS

- Fence goes all around the house
 - I decided to change the way the fence will be put around the house because it would look better as well as give more protection for her house and I thought it would give more space to at least add a patio, so I changed the design from the fence ending at the back wall to it going all around the house. This also gave me the opportunity to make a bigger garden but after I added the fence in the new design it still was not big enough to put a patio or porch.
 - Final design with fence all around the pod - Original design with fence stopping at back wall



- Added mosaic design on top of the entrance door
 - This was not initially part of my design but I added it to give the house a more modern x minimalistic look on the outside with the rocks and bushes as well. It did not turn out how I wanted it to but that is alright because it still gave it the look that it was added for, I also added it because it gave the house a pop of colour on the outside or something to grab a person walking by the pod's attention.
 - Final design with mosaic - Original without mosaic



EVALUATING

Criterion D:

EVALUATION AGAINST SPECIFICATION

| Design Specification points | Did your final design meet the specification point? | How can the design be improved to meet the success criteria |
|--|---|---|
| It will not contain expensive furniture. | N/A | Not applicable because it is something that is done with a real life pod not a model of it and a cost was not given. |
| The pod should have a reasonable price. | N/A | Not applicable because it is something that is done with a real life pod not a model of it and a cost was not given. |
| The pod could have solar panels. | YES | This specification was inspired by taking care of the environment, so I decided to add solar panels so that the pod is more eco friendly, it also adds a little bit more colour to the outside which is completely white, but the real life version would have had a nicer tiles roof and better looking walls. |
| The materials could be kept at a good cost. | N/A | Not applicable because it is something that is done with a real life pod not a model of it and a cost was not given. |
| My pod should have at least 4 windows | YES | This specification was added in to allow for more natural light to enter the pod, as well as keeping it more appealing, the windows were made using pieces of wood and pieces of thin plastic, in the model the windows allowed a ver sufficient amount of light into the rooms. But one or two of the windows were not added or were not added in properly making the design less appealing. |
| My pod should have a room that is built on a loft | NO (not in model but in plan) | This specification was met but due to an imbalance in the making of the model I was not able to add it in because the roof would not have fit on the pod properly. |
| My pod will be a mix of Minimalistic x Modern design | YES | This specification was met with the flowers and stones that were put into the garden, as well as the pots of flowers on the window siles and the mosaic style on top of the door as the person enters, it was emphasised by the wood surrounding the windows and overall the design of the house on the outside and the inside, with the loft, sliding doors and accent walls that would have been added if we were designing the inside of the model as well making the design much more appealing to the target user. |
| My pod must have a garden | YES | This specification was met, to give a more appealing look to the house on the outside as well as add more space for the user to relax and enjoy themselves in the outdoors or by gardening. Stones and bushes were added as well as a fence that goes all the way around the house as protection for the garden as well as the pod itself. |

EVALUATION AGAINST SPECIFICATION

| Design Specification points | Did your final design meet the specification point? | How can the design be improved to meet the success criteria |
|--|---|--|
| My pod must have a patio and porch. | NO | This specification was not met because there was not enough space to make a porch at the front of the pod, and I had forgot to add the doors in when sticking the back wall on so I could not add a patio, and the base of the model would have been too small for me to add a patio as it would have taken up too much space. |
| My pod must have Stairs with drawers. | N/A | The pod was not designed on the inside therefore this specification cannot be assessed and is none applicable. |
| My pod should have a place to park her bike. | YES | This specification was met because there are many places for her to keep her bike, whether it;s in the house next to the door or in the garden, she always has a place to keep her bike for any weather conditions. |
| My pod will have a couch bed. | N/A | The pod was not designed on the inside therefore this specification cannot be assessed and is none applicable. |
| My pod must have pocket doors | NO | This could not be added because i did not know how to make pocket doors but initially they were supposed to be added it just would have taken up too much of the time we were given to build the pod. |
| The pod will have a bed in her room | N/A | The pod was not designed on the inside therefore this specification cannot be assessed and is none applicable. |
| The pod should have a good space for storage. | N/A | The pod was not designed on the inside therefore this specification cannot be assessed and is none applicable. |
| The pod will be 5 meters in width and 10 meters in length. | N/A | This specification cannot be assessed and is none applicable because this is for the real life version of the model and measurements were not given. |
| The ceiling must be 6 meters high. | N/A | This specification cannot be assessed and is none applicable because this is for the real life version of the model and measurements were not given. |

EVALUATION AGAINST SPECIFICATION

| Design Specification points | Did your final design meet the specification point? | How can the design be improved to meet the success criteria |
|---|---|--|
| The Pod will be built on site | N/A | This is for application in the real life model. |
| The walls must be made out of concrete | N/A | This is for application in the real life model because we didn't have redwood, did not have to furnish the inside of the houses and did not have gray wood stain. |
| The walls on the inside will be made using redwood. | N/A | This is for application in the real life model because we didn't have redwood, did not have to furnish the inside of the houses and did not have gray wood stain. |
| The redwood walls will be stained grey. | N/A | This is for application in the real life model because we didn't have redwood, did not have to furnish the inside of the houses and did not have gray wood stain. |
| Most of the furniture will be made out of wood and fabric or metal. | N/A | None applicable because we had not built or addaded any furniture to the houses. |
| My pod will have a recycling bin | NO | A recycling bin was not added to the model because I did not know what to use to build it or how it should look like or where I should have placed it. |
| My pod will have a big kitchen space | YES | This specification was met because there is an interior wall distinguishing the kitchen from the other rooms and it is the second largest room in the pod, which also has one of the biggest windows to allow sunlight to flood the room. |
| My pod will have a big living room. | YES | This specification was met but there is no interior wall to distinguish the living room from the rest of the rooms but it has a lar5ge space according to the floor plan that I had created. |
| My pod must have a decent amount of storage. | N/A(available on the floor plan) | This is none applicable for the model but it can be found on the floor plans because all of her storage places are on there. |
| My pod should have a good sense of privacy | YES | This specification is met because the windows don't let people see into the house but you can see out of the house, there are wardrobes and closets and seperate rooms to keep things the target user wants to keep out of reach of other people when she has guests over. |

EVALUATION – IMPROVEMENTS

What would I change in my model:

My final product did not exactly turn out how I was hoping it would and I have a lot of things that I would change about my model, the first one being the size of the roof, I accidentally made it too big for my model so it throws off how it would actually look in real life with a normal and suitable sized roof and a straight one not one that is leaning to one side. This leads me into the second thing that I would change, generally speaking most lines, pieces of the board and some of the mosaics are not straight which does not give the design a good look and takes away from what the design actually should look like and represent (which is a cozy environment for the migrant worker to live in). Another thing I would change about my design is having a bigger garden so that I could add the patio as well as a proper place outside to park her bike and do/practice zumba. Overall I wish I had taken more time in planning out how I wanted to build the model, with what materials and proper measurements. It turned out much less visually appealing and I wish I had the time to cover the walls in a brick wall paper and given the roof a nicer finish. But overall in the end the windows, the decoration in the garden and the bottom half of the pods size turned out much better than the rest of the pod.

what would you change about your own skills (organisational skills, time-managements skills etc)

I would change my organizational skills and time management skills, because in the result of me not being organized and actually thinking about what I am going to do for my design it turned out to look very messy and rushed. I wish i had managed my time better so that if there were any mistakes I could go back and fix them as well as ask for feedback from my teacher. The final skills I would like to improve on are my creative skills so that next time my design would look less like a basic house and more like an interesting innovative new pod. The final skill is my cutting skills, due to my cutting skills most walls are an even size and have sloping sides or are the wrong size for the design (either too big or too small). Due to all the skills listed that I would like to change the pod did not turn out how I had imagined and looks much sloppier and messier than I had hopes for my first time building a model.

What other skills would you like to learn if you were to do this project again.

The main skills would be creativity in designing it, precision, planning and actually using this experience to learn how to build proper more professional models. These are the skills I would mostly want to improve if we ever do something like this again because it would help me build a much nicer, and better quality finish product that would actually look more appealing to my target market, as well as other people if they need someone to design something like this for them. One of the other less important skill i would like to improve on is coming up with better specifications that are achievable and relevant to the design because many were none applicable due to them being specifications for real life application.

In conclusion, if I were to ever do this project again I would really want to try and focus much harder on what I am doing and develop new skills from learning new techniques. I would like to improve on my skills that I had mentioned not just for design but for the real world as well.

EVALUATION – IMPACT OF THE POD ON THE TARGET USER.

Impact on the Target User (Migrant Worker)

The target market for this product is a Migrant worker who is a nurse named Mary Reyes. This pod impacted her by giving her a much cozier and comfortable place for her to live in, and trying to follow most of her needs I designed a pod that I thought was best suitable for her, making sure to include privacy, storage, a space for herself, a bigger kitchen, a space to practice her zumba and dancing. I think this pod will affect her in a very positive way, because although it is small it has everything she needs and will feel like home to her. It will also impact her knowing that someone actually took the time to look at her needs and design something very personalized for her and her job, she will hopefully enjoy having a spacious kitchen and a very big room, with a desk for when she needs to study, a wardrobe with all her clothes, and a lot of storage with a vanity table, and a garden for her to spend her free time in gardening, reading, inviting friends over and maybe even practicing her zumba. I think if this was a real life thing many of the migrant workers whom these have been designed for will be very grateful because they get their own personalized space with everything they need and with privacy and spaces to practice their hobbies.

Impact on the Global Context (UN Human Rights)

My pod meets many of the human rights expectations unlike the current living conditions of my target user. This space meets the expectation of privacy, and cleanliness, it meets the expectation to her having her own personal space. Her current living condition don't give her much privacy whatsoever as she shares the space with 4 other women, and from images and videos we have seen the hygiene in the places they live in does not meet the expectation of the human rights at all. This is why there are human rights and this is why their expectations should be met for everyone not just migrant workers in qatar but everyone all around the world, and this one design project affects a lot of our views of the impact of this pod on one person and their rights that are finally being after a long time staying in a place where you had no privacy, limited time to yourself, limited space to yourself, limited hygiene. I think many migrant workers would be very thankful if they ever actually received something like this because so many countries would fall apart without them and they deserve to be treated with respect and they deserve for their rights to be met.