

G8 STUDENT B

LIVING POD PROJECT FOR MIGRANT WORKERS

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Homeroom: 8A



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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:

GANNT CHART

Week Starting	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15	Week 16
Gantt Chart	Done															
Situation Analysis		Done														
Research		Done	Done													
Product Analysis				Done	Done											
Specification & Brief					Done	Done										
Design Ideas						Done										
Evaluation of Ideas							Done									
Development							Done	Done								
Manufacture								Done	Done							
Making										Done	Done	Done	Done			
Testing and Modifications													Done	Done		
Evaluation														Done	Done	Done

Research – Migrant Workers

1. Explain the term Migrant? Give an example

A migrant is a person that is living in a country they aren't from to find work, or education, or a lifestyle/better lifestyle. For example when someone is from Africa/Asia/Europe and etc., and they travel to live somewhere else, then they are a migrant.

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

- If the place is unsafe (ex. Has a war), they obviously must leave
- If they have to find a place to work
- They might want to see their family
- Also for education, like universities or schools
- To be closer to family and friends








3. Explain the following words below? Give examples

Refugee: A Refugee is a migrant that was forced to leave his country because of persecution.

Asylum Seeker: A political refugee. As in the government politically approving to leave the country as an Asylum seeker.

While watching the film, use this worksheet to:

- > Note down the reason each person in the film gives for migrating
- > Note any new words

Name	Reasons for migrating	Name	Reasons for migrating
Sajwaa 		Ines 	
Shakeeb 		Priyanga 	
Alain 		Glenda 	To find a better job and to support her family
		Ebrahim 	Left home because of persecution

New words

Research – Human Rights

1. How would you define Human Rights?

The rights that every human has.

2. Who is entitled to Human rights?

Everyone in the entire world.

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

1. The Right to Equal treatment
2. The right to food and water
3. The Right to religion
4. The right to freedom of speech
5. The right to shelter and safety

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

1. The right to clean water
2. The right to education
3. The right to food
4. The right to hygiene
5. The right to health care
6. The right to safety
7. The right to shelter
8. The right to religion
9. The right to equal treatment
0. The right to rest and relax

5. In what year was the United Nations formed?

The UN was merged 1945

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

30 human rights are in the Universal Declaration.

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

Because it was optional. Some of the countries didn't sign the Declaration, so they won't be using those rights.

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

1. Mahatma Gandhi
2. Nelson Mandela
3. Martin Luther King
4. Abraham Lincoln

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 **remittance**.

Migrants need a **permit** to legally work in a another country.

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 model? • How much will the program cost? • How much will it cost to make the actual pod? • How much will the residential ground for the pod? 	<ul style="list-style-type: none"> • Internet Research/ Asking Experts • Internet • Internet • Asking people 	<ul style="list-style-type: none"> • Primary Research • Secondary research • Primary research • Secondary research
AESTHETICS	<ul style="list-style-type: none"> • Is the house attractive or efficient? • What material will absorb the heat? • What a reasonable space of the pod? • What is not visually appealing about the pod 	<ul style="list-style-type: none"> • Ask workers • Internet • Ask workers • Ask Workers 	<ul style="list-style-type: none"> • Primary Research • Primary Research • Secondary research • Primary Research
FUNCTION	<ul style="list-style-type: none"> • Is the pod functional/useable for the workers? • How do you make a pod that can function effectively? • How can the function of the pod improve? • Is it good overall? 	<ul style="list-style-type: none"> • Ask workers • Internet • Ask workers • Ask workers 	<ul style="list-style-type: none"> • Secondary Research • Primary research • Primary Research • Primary Research
MAKING (Software, Hardware)	<ul style="list-style-type: none"> • Which software I should use? • What is the best material to use? • How can I sustain the pod on a good level of strength, structure and safety? • Should I use hardware or software? 	<ul style="list-style-type: none"> • Internet • Internet • Internet • Ask experts 	<ul style="list-style-type: none"> • Primary Research • Primary Research • Secondary Research • Primary Research

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	<ul style="list-style-type: none"> • Who is my Target market (age)? • What do they want in the pod? • Why would they specifically use the pod? 	<ul style="list-style-type: none"> • Internet Research • Ask workers • Ask Workers 	<ul style="list-style-type: none"> • Primary Research • Primary Research • Secondary research
ETHICAL ISSUES	<ul style="list-style-type: none"> • How will give the migrant workers more space and privacy? • What will give the migrant more personal storage? • What will maintain the house's condition? • 	<ul style="list-style-type: none"> • Internet • Internet • Internet • Internet 	<ul style="list-style-type: none"> • Primary Research • Primary Research • Primary Research •
SAFETY (e-safety)	<ul style="list-style-type: none"> • How to make a safe pod? • How should I keep the pod standing at all times? • What material would have a lower chance of harm to the pod? • What structural strategy will maintain its safety? 	<ul style="list-style-type: none"> • Internet • Internet • Internet • Internet 	<ul style="list-style-type: none"> • Primary Research • Primary Research • Secondary Research • Primary Research

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 reason why we are making a pod is because they are is a lack of housing for the migrant workers in Qatar. Even though they have some housing, it is still in horrible condition and isn't spacious or comfortable to any person to live in. We have design a functional and effective pod to make their living better, and also to to apply more housing too. 86% of the population of Qatar are migrant workers which most are paid poorly and live in horrible conditions.

The solution to this horrendous issue in our country and the entire world is to design living pods individually for more privacy and better quality of housing. We should design small but effective and better houses than the houses the workers are currently in.

By making these pods, it will provide so much more space individually for every migrant worker in Qatar or the entire world. With modern technology and substantial architecture, we have the potential to make so many amazing houses for the workers that build the very buildings we stand on. They deserve the human rights all humans do, whether they are workers or not.



RESEARCH – TARGET USER PROFILE

Name: Abdul Hakim

Amount of time living in Qatar: He lives in Qatar for 10 years as a construction worker

Working hours: He works on approximately over 12 hrs a day

What he wants: To get money and enroll his kids to a good school in Bangladesh, but he is struggling to do that with a low salary.

Family: He has a wife and 3 children that are in Bangladesh, which is why he (he Skypes them dail

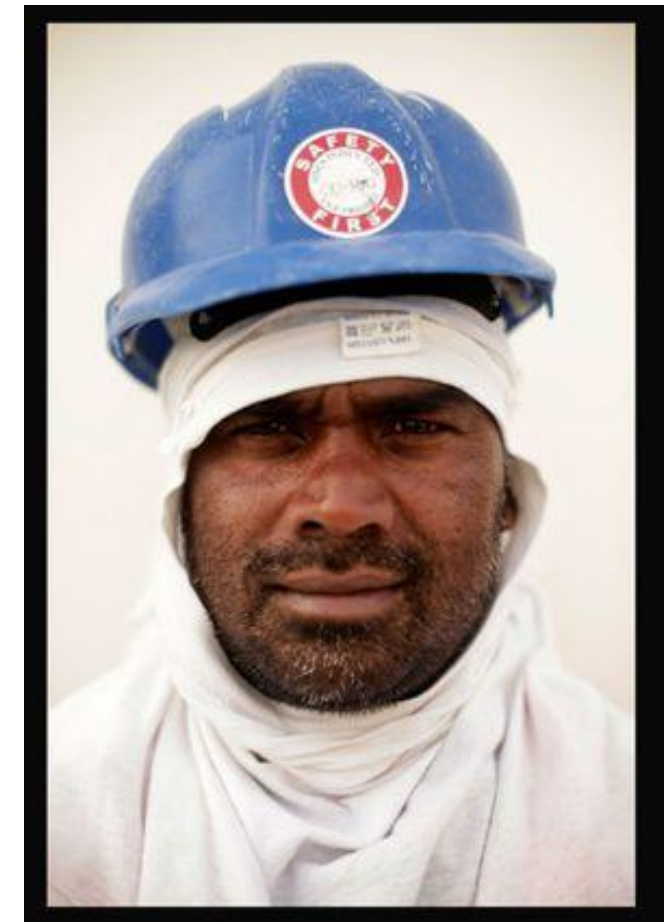
Salary: 4000 QAR, not given the each time he gets his salary (1000 QAR is taken for shared accomodation)

Personality: Gets along with lots of people and doesn't mind sharing with somebody

Things he likes/loves: He watches cricket with his friends every time Bangladesh plays. He also likes the patterns and designs of indian art. Lastly, he loves take out food since he not good at cooking.

Things he doesn't like: Cooking since he is not good at it. Which is why he likes take out food

Link: This information makes me know what he wants and doesn't want in his pod that I will design for him. It gives us things to avoid and things that are a must.



(RESEARCH) Product analysis

Analyse an existing pod or living space. Get an image of your pod on the next page and use the headings below to analyse it? **You will find and analyse 4 existing living spaces (pods) using your CAFEQUES criteria below:** These headings and questions should help you remember how to effectively analyse and evaluate products. Read through this slide then answer the questions on the next slide.

Cost

- How much does the pod cost and is it good value for money?
- How much do you think it cost to make?

Aesthetics

- Does the product look good? Explain why?
 - Does it make good use of colour and texture?
 - Has it got a good quality finish?
 - What is the shape like? Is there any particular way it is shaped liked this?

Ergonomics

- Is the pod comfortable to use?
- To what extent has the designer considered human factors (ergonomics) in the product's design?
 - If you increase or decrease the product's scale, would it work or look better?

Function

- Does the product do the job for which it was intended?
 - How well does the product work?
 - Could it be improved?
 - Is the pod portable?

Manufacturing

- How was the pod constructed? Was it made on the site or prefabricated and brought on site?
 - Can it be assembled easily?

Safety

- How has the designer considered the safe use of the product?
 - Think about who may be using it (ages) and how different parts have been joined together?
 - Does the product meet safety standards?

Environment

- Can you think of any impacts the product or use of the product may have on the environment?
 - Think about its manufacture, general use and final disposal when its not needed.
- Would you say the design is sustainable (eco-friendly) if so how?

User

- Who is the product designed for (the target market)?
 - Why would they use the product?
 - What impact will it have on the consumers quality of life?
 - How is the product promoted to attract its customers?

RESEARCH – POD ANALYSIS 1



The Cinderbox Dwelling

Cost: The price of the house is \$19,000, which was a reasonable price since it is an impressive pod. It also has great furniture which fits in the house. Looking at its structure, size, furniture, and expensive material, I think it took \$15,000-20,000 to build the structure.

Aesthetics: It was an extremely visually appealing, with its structure and its lighting makes it such an amazing pod for anyone that can afford it. It uses incredible use of color and texture, with the outside with burnt oak color, and the inside with a light brown wood, and the texture looking smooth in the inside. It does have a good quality finish, from the color to the furniture, its marvelous. The structure of the house fits in with its modern feel, it has a missing wall because the glass doors are there, and the half of the right wall is open for the entrance. It is shaped like this because it makes it look more spacious, and appeal the users.

Function: The pod successfully has done what it is intended to do (which is give a good and sustainable living space). By the looks of it, the only flaw it has is lack of privacy, because of the glass doors. But overall, it does function effectively. The furniture is updated and functional, so is the bathroom, and has plenty of extra space too. It could be improved by gets the bathroom better space and a but of privacy too. Unfortunately, the pod isn't portable.

Ergonomics: Looking at it, it looks quite comfortable to use, with its updated furniture and lots of extra space; for a pod it is comfortable. Clearly, the design really cares about how a human can use this functionally and smoothly. It has everything someone can ask for, but except privacy. But the more important and more quantity of advantages outweigh the disadvantages. If you increased or decreased it in the market, it would go good either way since it is pretty cheap for a nice pod like this.

Manufacturing: It looks like it wasn't built on site since it can't assemble it easily looking at its structure. I think that because the outside structure is all connected with the floor and the stairs too. With built-in glass doors and furniture, this clearly was made before it went on site.

Safety: The house doesn't look like it has any dangers, thanks to the designers of thinking about the safety of the house. But there is still possibility of danger, but a small chance of it. The lights are looking safe, and also the stable the structure of the pod keeps it safe too. But looking at physical damage by people, someone can easily break the glass doors. As it is, the pod doesn't meet safety standards. From its structure to its inside furniture and essentials, everything looks safe.

Environment: The only way this house affects the environment is its use of materials and ground space, which is 200 square footage, or 18.58 square meters. Also the use of electricity and water. This pod only affects the environment like any other house. This house doesn't look like it has any solar panels, windmills, or anything else that is eco-friendly.

User: The target market are adults needing better housing. In our case, migrant workers. They would use this product because it uses small space efficiently and using materials wisely. They also put a great and reasonable price. However will buy this, this pod will impact them depending on their past experiences of housing. Since we are talking about migrant workers, this will affect them a lot since they live in horrible houses with too many flaws. It's low price attracts the customers, since its compared to the other pods available, this is a bargain.

RESEARCH – POD ANALYSIS 2



The Cypress

Cost: This pod has an extremely high price of \$57,000. I completely disagree with the price of this house, since there are pods bigger than it and half the price of it. But looking at its info, it can be portable, and can apply heating and more power to the house if needed or wanted to by using propane tanks. Looking at the size, where it's built, the materials, and its options, I think it would've cost \$40,000 and the additional 10k dollars is because of the portability option, and the option to add heating, which should be pre-prepared in the electricity to work.

Aesthetics: The outside of the house looks stunning. The cottage feeling of a home when you look at the design of the roof and windows. The colors and texture are used wisely in this house. The colors are contrasts, making it look wonderful. The texture looks like to be a clear oak color used for the wood. The inside looks more spacious than it is, as the house is 130 square foot or 12.07 meters squared. It is a good quality finish, with the paint finishing it off nicely. The reason its shape is like that is because it wants you to feel cozy like you're in a mini cottage.

Function: The pod definitely does what it is intended to do. With additional things too, the pod would function incredibly. The only flaw it has is the lack of extra space to be more comfortable. 130 square foot is enough to at least live sustainably, but in slight comfortableness. Fortunately and fantastically, it has an option of becoming portable if you have a moving vehicle and a hook.

Ergonomics: Although it doesn't have a lot of extra space, it is at least functional and has enough space to live comfortably. The designer has thought about the height of the house that is suitable for any average human. There is limited space for essentials the designer has thought about, but not that much of extra space after it's furnished. I think if it increased in the market it would fail since it is too expensive, but if it decreased it would be much more successful in the market.

Manufacturing: It definitely was built on site because most of the house looks like it's separate. Therefore, it isn't easy to assemble. Since the roof is separate to the walls, but just drilled in and additional support of course to maintain the safety of the pod.

Safety: Looking at the structure of the house, it looks perfectly structured, with a strong roof and couple of supports from the walls, it does look safe for adults. With privacy because of the small windows, and strong material, therefore this pod meets safety standards.

Environment: Like any other pod, it's affecting the environment by the use of its building materials, electricity, water and other essentials in a pod. Since its space around doesn't look like to have a lot to nature, it hasn't affected its surrounding too. But its disposal will affect the environment since the trees that were cut to make that pod are now just wasted. This house isn't an intentionally eco-friendly pod, it's just a pod. No solar panels or energy savings, just a normal pod.

User: This product is clearly made for adults that would like cheap and small but comfortable and functional pods. Depending on the customer's past living conditions, they either were in a great house but lost it because of some economical issue, or were living in horrible conditions and now are finally moving to a better house. But in this case, migrant workers are living in horrendous conditions, so this will have a huge impact in their lifestyle. If they state the options or portability and heating and power additions, it will attract customers to buy the pod.

RESEARCH – POD ANALYSIS 3



Cost: The main thing why the cost of this pod is \$40,000 is because of its portability. It is a reasonable price since it is expensive to have energy, water, and wheels all in one pod. With its material and structure of the house, and its wheels and other appliances, I think it costs \$35,000-40,000.

Aesthetics: Its exterior is pleasantly thrilling. With the different sizes of windows having a modern feel, and a change of material in the middle of pod makes it have a good use of color and texture. The particular shape of the pod is built like that to make it easily transported and more safe since high triangular roofs might be too dangerous while driving. Overall, it is a good quality finish

Function: Its function is clearly unique because of its portability. It does more than it has. It gives you a slightly spacious (97 square footage), and comfortable space to live in, that can also transport. Its space could improve, but it is hard to make a spacious space that can move.

Ergonomics: Looking at its space since I can't see the inside, it does give just enough space to have enough utilities to live sustainably. It's height is also more than enough. It could fit a couch and a table, a eating place and possibly a little bathroom. So in conclusion, the designer have thought hard to make this portable pod functional. If it increased in the market it wouldn't go badly, but normally since it is already \$40,000. But if it decreased it would be a bargain to every customer in the market.

Manufacturing: It was clearly pre-made, since there are built in doors, windows and wheels too. This makes it easy to assemble, since there are already so many built ins, it's just the roof and walls that have to be assembled

Safety: The designer has considered the safety standards of the pod, but to any portable home, there are dangers. The designer has done his best to make the pod as safe as it can; like making small, but big enough to live comfortably. Since the age that will be using the pod are adults, its safety has increased since most adults are mature enough to not harm themselves. So overall, it does meet safety standards if the owner the pod is aware.

Environment: Its little affect to the environment is just its uses of essentials for a house. But not only that, since its portable, the gas of the vehicle will go to atmosphere, which is quite unfortunate. I don't think this house is very eco-friendly, but at least useable and functional

User: The target market of the pod is adults or older, that would use this pod to live in a either better or worse place for particular reasons; depending on their past living conditions. But overall would use this to have a small but functional space to live in. Mainly its portability and its ability to withstand terribly cold temperatures will attract its customers.

RESEARCH – POD ANALYSIS 4



Cost: It's a bargain to have a 112 square footage pod to cost \$12,000. Its size is more than enough to live at least functionally and comfortably. With its material and cathedral-like roof that is 10 feet tall, I think it will cost from \$15,000-20,000. That's why I think the price is so suitable.

Aesthetics: It is appealing because of its excellent roof structure, and having a cottage feeling when looking at the windows and doors and especially its material; therefore it does make a good use of color and texture since the color of the wood is perfectly fitting with the looking of the texture of the pod. Its structure is like that because it's just a style of a house. Nothing special about how its built. But overall it is a good quality finish, but not only the pod itself, but its beautiful surroundings too.

Function: This pod does what it has to do, give its customer a space for essentials, and extra space too. It looks like it functions perfectly, with the structure making the pod strong and amount of space determining its potential to be a great living space. The only thing it can improve on is its blending in with its surroundings, but nothing really to improve its function.

Ergonomics: The designer has thought about the human factors, since it has so much space for all the essentials and a little extra stuff too. So a person can live comfortably and greatly in this pod, unless they have lots of personal items. But overall, I think the designer has worked hard on this pod. Either if it increased or decreased, the pod will still be successful in market due to its low price and high quality.

Manufacturing: This was built on site because the roof is technically connected to the front wall. Also there are not many built ins in the pod too, so it is not so easy to assemble.

Safety: Looking at its structure, its target market and the fact that it's probably built on site, I think this pod meets safety standards. Because the structure of the pod makes it strong, with the support beams and strong material. Also, the target market is adult and older, so I'm sure whoever will own this pod will be responsible enough to maintain their safety, Finally, it's probability of the pod being built on site shows its more safe too.

Environment: It might of affected its surrounding since its full of nature. But everything else are just the normal affects to the environment when building a pod (Material, water, electricity and etc.). As this pod is a pretty average pod, I don't its eco-friendly or that its majorly affect the environment badly.

User: As stated before, the target market is adult and above. The target market will use this pod for a cheap but effective space to live in. The impact on the customer is depending on the past living conditions of the customer, so if they were living in a spacious and luxury house a left for economical reasons, this might affect them badly, and if they were living in horrible conditions and change to this pod, it will affect them majorly. .

DESIGN BRIEF

Nowadays, adult migrant workers are 86% population of Qatar. They all live in horrible conditions, sharing houses with average over 40 people, and having compacted bedrooms. So designing these pods will be crucial.

I will design a pod for adult migrant workers. The pod will be mostly modern looking since that's what catches people's eyes mostly today. The pod will be at least highly functional and comfortable for the migrant workers. I will be designing my pod with a software called SketchUp, and Making it modern looking and highly functional and comfortable will attract more companies that have migrant workers to rent or buy the pods.

DEVELOPING IDEAS

Criterion B:

MOODBOARD



SPECIFICATION

<u>Generic Area</u>	Specifications	Reasoning
COST	<ul style="list-style-type: none"> The Pod will cost less than it has to, to make a good quality living pod The money that will be invested to the Pod Should wisely to make it The money that will be used for the Pod Could be used for luxury things 	<ul style="list-style-type: none"> Because the less price the more affordable for my client , and also because the money that will be invested into the pod will be used wisely to make it good quality This will make the pod in great quality and reach all the goals I have indicated by using the info I have learned about my client This will appeal my client and give a little surprise in the pod, not making it just a normal pod, it might have great extra little things that make the experience of the pod better
AESTHETICS	<ul style="list-style-type: none"> The Pod will have a pleasantly looking exterior and interior The Pod Should be have a modern feel to it The Pod Could be a mix of modern and rustic The Pod must have quality furniture, that blend in with the feeling of the house 	<ul style="list-style-type: none"> This is essential since the appealing exterior will give a good introduction of the pod, and of course the interior has to look incredible to appeal my client and make him look forward to live in his new pod This is because I feel like modern fits in with my things I want to include in the pod. Also, I suggest the pod to be modern since in my opinion I think it's great type of house to use for small living pods. I have made this a possibility because it will make the pod have character and making look appealing This will but the living pod all together, and blending all its appliances and furniture to the color, texture and modern feel of the house
FUNCTION	<ul style="list-style-type: none"> The Pod will be functional with a door, bathroom, kitchen, bedroom and living room The Pod Should have windows for natural light to come in the pod The Pod must have consistent electricity and clean water that my client can access. 	<ul style="list-style-type: none"> These give essentials for my client to use in his pod, as a normal house would The windows would be great for the pod, so it won't have to use light every time, when sunlight can come in and light up the house This is obvious and essential needs for a house/pod to function, without these things, the house would be completely dysfunctional and unpleasant
MANUFACTURING (Software, Hardware)	<ul style="list-style-type: none"> The Pod will be made by hand The Pod Should be made with materials like cardboard, laminated sheets and etc. The Pod Could be 3D printed The Pod must be designed by hand 	<ul style="list-style-type: none">

SPECIFICATION

<u>Generic Area</u>	Specifications	Reasoning
USER	<ul style="list-style-type: none"> The Pod will have a stove, but not an oven. In replacement, he will have a microwave The Pod Should have enough living space for him to sit freely to skype his family, in privacy The Pod Could have indian art The Pod must have a TV so he can watch cricket 	<ul style="list-style-type: none"> This is because he said he is bad at cooking, therefore we only need to heat food that he gets, since he can't make any on his own. This will allow him to enjoy his talk with his family, and make him feel comfortable in his house because of the more living space, and can do it privately. This will be in the interior of the house as paintings, not as the pattern of the material we are using for the house. We will include this because the migrant worker I am providing like indian art, and enjoys its patterns and etc. He loves cricket and it's his favourite sport. He also likes to watch it with friends, which requires space and of course a TV.
ENVIRONMENTAL ISSUES	<ul style="list-style-type: none"> The Pod will not affect the environment majorly, making it least polluting as possible The Pod Should not be around any clean environments that are important since lots of things in a house or living pod that can affect its surroundings The Pod Could be a fully green environmental house The Pod must not be polluting, with no chimney bursting out smoke, or a pod too big and making it have to us lots of water and electricity. 	<ul style="list-style-type: none"> This is a must because the environment is polluted already, so we are avoiding any gas releasing, water wasting and etc., but not make a greenhouse environmental living pod Just to avoid risks, the location won't right beside plants that will be easily polluted, but a medium walk distance away since location is also important This can be an option, but most likely won't be used as an option This is also a must because the house is aid to be least polluting as possible, so these things must not be included in the pod
SAFETY	<ul style="list-style-type: none"> The Pod will be safe enough to handle with bad weather The Pod Could have extra pillars to make the roof more recure just incase of any weather issues. The Pod must be safe and have a structure that must be able to be stable and strong 	<ul style="list-style-type: none"> For example heavy rain, strong wind, sandstorm are weather conditions the house at least must stay functional in This is just to make the house feel most safe for my client, the extra pillars will hold the roof and make it even more stable than it already is This is another thing that the pod must be. If it is not stable it is not functional and cannot be lived in
Ergonomics	<ul style="list-style-type: none"> The Pod's doors will be at least 2 meters high The Pod should have chairs that can be accessed by my user (0.5 meter) The Pod must have windows that can used by my user (1 meter above the ground) 	<ul style="list-style-type: none"> This is clearly a must because it will uncomfortable to enter the house if the door is shorter. This is also due to human factors, where my user can be able to use what is provided in the house Another main part of the house that has to be useable for my user

DESIGN IDEA #1

AESTHETICS

I think this design is great because it has a modern feel to it, and its exquisite in its own way. I also like it because its space is used wisely and covering all my user's needs. Lastly, its negative environmental impact is reduced by the use of solar panels, which is great. But, it has its flaws. For example, its second part on its left hand side doesn't mix in with the main part of the house as well as I wanted to, since its pattern its different and its shorter.. Another flaw is awkwardly placed pillars, that block sight of the user from the the front windows, but at least contributes to the pod's safety.

The main colour of my pod is going to be a sandy yellow from the outside, to paint the brick and cement used to make the walls. But the hardwood floors will be a darkish oak color. The frames of the windows and glass door will be black. The doors and their frames will match the floors. The outside deck will match the sand, with light wood color. The roofs will be a normal metal color, finishing off the modern feel.

Modern style has inspired me to make this design because of how the layout of the pod is and its aesthetics are displayed. It has mix of powerful materials and bold colors, which the colors of my house. Those colors are also inspired by the environment of Qatar/the surrounding of the pod. This is shown by the use of the sandy yellow color used for the walls.

MANUFACTURE

This will be made on site since it has a deck and if made in a factory and transported, and reassembled on its destination, it will be more dangerous and less stable since it will be hard to assemble a deck, to a 2 part pod. Also, the transportation vehicles will emit CO2, which contributes to Global Warming and climate change.

ENVIRONMENT

As like every other house, its obvious impacts are its use of water, electricity, space, and can release gas in some situations. But its main impact is that it uses solar panels, therefore using the sun as energy that is provided for the pod's electricity. This, is a good impact, that outweighs the negative impacts, since use of electricity is a big impact if you think of it globally.

My pod is sustainable because it has solar panels, and has lots of natural light coming in the house because of the windows, and of course small, and not affecting or destroying or damaging any natural habitats. All of these things have clarified my pod sustainable and is as least polluting as possible.

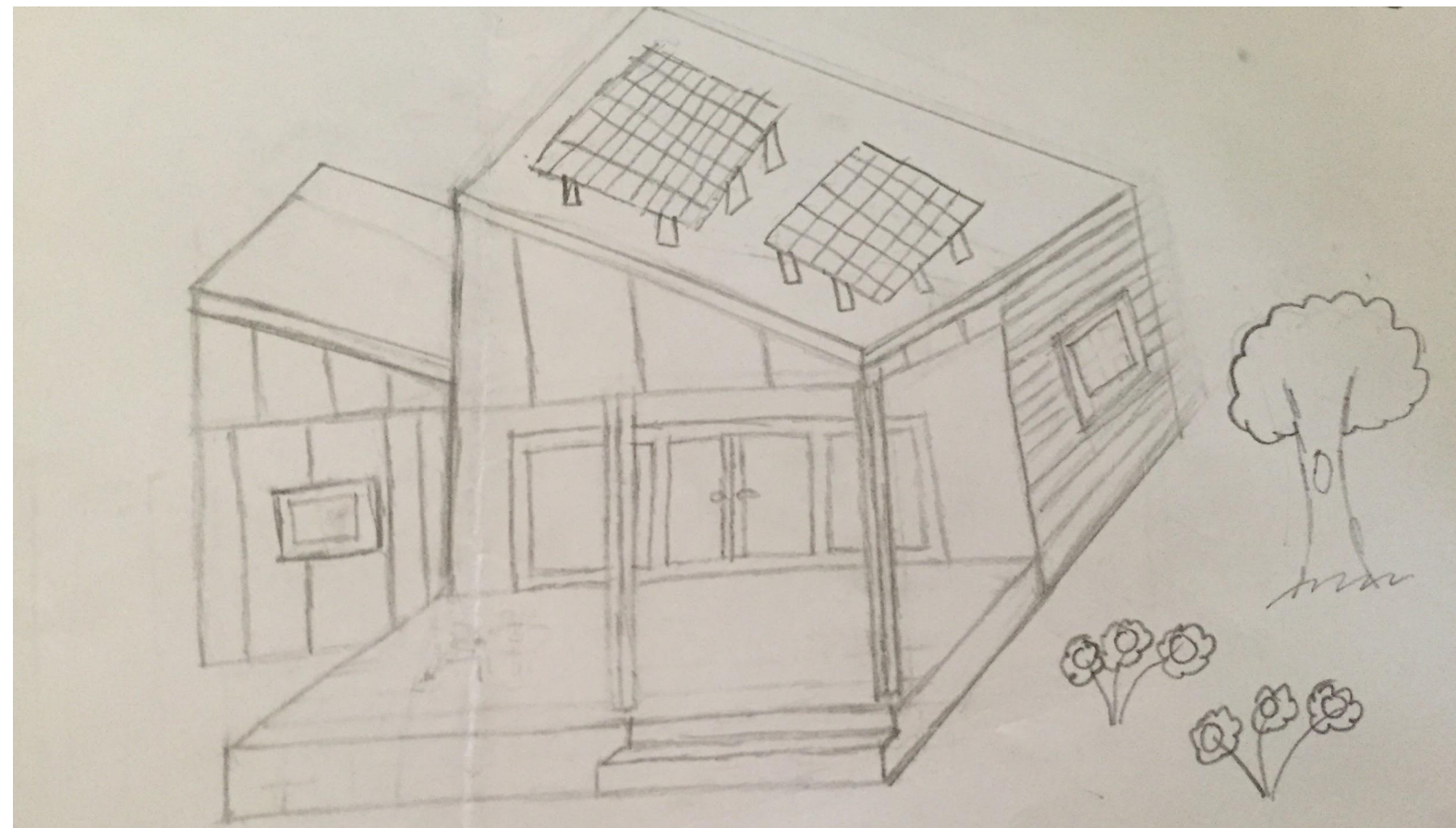
ERGONOMICS

The size of my pod is going to be 50 square meters. The first part of the house will be 7 meters by 5 meters, which is 35 square meters. The smaller second part of the house will be 3 meters by 5 meters, which is 15 square meters. Making it in total, 50 square meters.

There will only be one storey because it isn't necessary, and the 2 stories will be small, due to the size limit. If it was only one storey, there will be so much space to use, and of course will be ideal for my target user.

FUNCTION

Its function is quite simple. The access points for each room isn't sophisticated or unexplained. Its windows are places in almost every wall of the house, making natural light the main lighting source in the morning and afternoon. But it's roofs are is where the pod has my concerns. The main part of the house's roof is greatly placed, and in case of any of rain, it can just push it away, but the second part of the house has a roof that can be quite dangerous. If heavy rain will go on it, the rain will slide down and collect in the bottom, this can cause a possible collapse depending on heavy the rain is. Lastly, the outdoor deck and its roof above it is held by 2 strong and sturdy pillars, and my user can access the house with the stairs provided.



MATERIAL

My pod will be made out of painted brick mixed with cement and metal, and the windows will of course be made of glass. The windows will let natural light into the pod, contributing to the pod's function and aesthetics. The metal is used for the roof because it can handle heavy rain and strong wind, making the pod stronger. Lastly, the painted and patterned brick will complete the modern feel of the house, and making it a stronger pod too. But the indoor floors, doors, door frames, and window frames will be wood, contributing to the house aesthetically and the pod's function.

SAFETY

I think this pod is safe to live in because the material of the house is strong. The metal used for the roof could resist heavy rain, strong wind and extreme weather. So can the brick and cement used for the walls. In addition, the pillar finish off the house, making it completely secure and safe to live in. But, the wooden floors and doors will increase the possibilities of a fire in the pod, making it slightly less safe.

USER

My pods characteristics, aesthetics, function, etc. does meet the needs of my target user because it includes my user a private space to talk to his family, it has a TV for him to watch cricket, and some extra space to watch cricket it with friends. He also doesn't cook, therefore I didn't include a full-sized oven, but replacing it with a stove and a microwave. But I haven't included indian art, which was a requirement, but not a major one. In conclusion, all of these things are requirements given by my user, and that were included in my pod. Therefore, because of the almost all these requirements ticked off, this makes my pod perfect for my user and is successful.

Only my peers have seen these design ideas I have done, and most think its creative, its use of the solar panels make it even better, its extra outdoor space contributes to the pod by including more comfortableness and more space to use for the user.

OWN QUESTIONS

The questions I will ask myself about this design are the following:

- What is the size of your outdoor deck?
- Why do you think the material you chose to make the pod with, suits it the best?
- What could make your pod safer?
- Why have you chosen this particular style?
- Have you put any plants or outdoor furniture to improve the aesthetics of your pod?
- Can your user live in this pod comfortably?

DESIGN IDEA #2

AESTHETICS

I think I like this design idea because of how it uses its space. The limit space didn't stop the pod from looking modern, pleasing, and great. It's also creative because of how it functions, how the second floor is accessed and its placement. Its finishing touch is the roof and the windows, they contribute the pod's aesthetics perfectly, and both fitting the style of the pod.

The color of the walls will be white, and the roof will be painted maroon. This is representing the flag of Qatar. The doors, door frames, window frames and floors will be a dark wood color.

The colors of the house were inspired by the qatari flag, for the white color of the walls, and maroon color of the roof.

MANUFACTURE

Since this is 2 floors, it has to be made on site because it will be dangerous to build the floors separately in factories, and transport them to the place that it will stay in, and assemble the pod together because it will be too heavy and too risky. If it does get done like that, its possibility of collapsing caused by extreme weather will be too high to be safe.

ENVIRONMENT

Although it doesn't have any solar panels, windmills and etc., it is still sustainable. For example, the high amount of windows in the house can decrease the use of light. Since it has 2 floors, it takes less ground, therefore not affecting its surroundings majorly. Lastly, its lack of the use of wood decreasing the amount of trees chopped, and at least slightly decreasing the rate of a huge problem. Addition to all of this, its impact is both negative and positive in way, to the environment, but minor globally as its one pod only.

ERGONOMICS

The size of this pod will be approximately 46.7 meters squared. The first floor will be 5 meters by 7 meters, which is 35 meters squared. The second floor will be approximately 5 meters by 2.3 meters, which is approximately 11.5 meters. Therefore making the entire pod's size 46.7 meters

There will 2 storeys because it will make my user have a more private bedroom, which can be his private space to do personal things. It also can give more extra space instead of everything cramped into one floor.



USER

This design idea has ticked off most of the boxes for the requirements in the house, given by my user. This is ensured because this pod includes a private space for my user to talk to his family, this pod also has a TV for him to watch cricket, and some extra space to watch cricket it with friends. He also doesn't cook, therefore I didn't include a full-sized oven, but replacing it with a stove and a microwave. Although indian art is not a major requirement, I still haven't included there, therefore not managing to include all the requirements that were given. But in conclusion, I think the majority of its advantages have ensured that this pod is successful.

My peers thought that this pod was creative because of the placement of the second floor. Its aesthetics are great because of how it's spread out and using as much space as it could. Also because of the roof and its windows. Overall, was a great aesthetically pleasing and creative pod according to my peers' thoughts of this pod.

FUNCTION

Because of its interesting function, I will have to explain it. To enter the second floor, there will be a ladder with a short door (because the first floor roof is blocks most of the wall). Its windows are placed almost in every wall of the house, and on the roofs too. Talking about the roofs, they are triangular because if there will be heavy rain, the rain won't be collected, it will just be pushed away. Lastly, its rooms are pretty simple, the kitchen, living room and a guest bathroom are downstairs, and the bedroom and master bathroom is upstairs.

MATERIAL

The material use to make this house will be metal, glass and cement and brick. The cement and brick will be used to make the walls, making them strong and stable, just what a house is required to be. The glass will be used for the windows and roof windows that are placed on the triangular roof. That roof will be made out of metal, also ensuring how safe and stable the pod will be. Lastly, the floors, doors, door frames, and window frames will be made out of wood.

SAFETY

This design is safe because the use of the strong materials make the pod be able to handle extreme weather and the possibilities of collapsing has decreasing due to the strong materials too. The cement and brick will ensure the strength of the pod, and the metal roof will make it even better, being able to handle heavy rain, strong wind, hail, and etc. But, although its safe from the outside, there is a flaw of safety from the interior of the house. The flaw is the wood used can increase the probability of fires occurring.

OWN QUESTIONS

The questions I will ask myself about this design are the following:

- Does it have a backyard?
- Does your user need any parking space?
- In what way does it affect the environment (positively? Negatively?)?
- Does it have extra space?
- Does it have enough storage for your user?

DESIGN IDEA #3

AESTHETICS

I think this design is aesthetically pleasing because its modern design is used so perfectly, with a great color blending in the style of modern into the pod more, and its interior design just blends in perfectly with its style, with dark oak wood and grey like the exterior. In conclusion, the house's style and space is used amazingly, and its exterior and interior are the best things about the pod, and its number of windows just adds to it greatly.

The main color of my pod (which will be the color of my walls), will be a grey stone color, and the wood will contrast it with a dark oak color. These colors make the pod more modern, creative and have a great exterior and interior look. It will be same for the interior, but the wood used in the floors, window frames, doors and door frames will be light oak instead.

My design is inspired by the Modern Architecture used today. Also having a slightly light and dark color with it, and having a flat roof with lots of windows. But the interior of a modern design is more light and bright, which is the case with my pod.

ENVIRONMENT

Although there is no special environmental machine like a solar panel or windmill included in the design, it still can be considered sustainable. Its lack of use of light makes the pod more sustainable, since it has so many windows that can let in natural light. Although its large overall size, if this was stretched out to the floor in ground level, then it would take a considerable amount of land that can be affect the environment, and be unsustainable. In conclusion, I think this pod is sustainable, and more or less has a good and bad impact to the environment.

MANUFACTURE

It has 2 storeys that are both basically the same, if placing them together after making them separately will be how the pod will be assembled, the possibilities of a injury or even possible death are too high to be ignored, since it is way too heavy and dangerous. Therefore this pod must be made on site.

ERGONOMICS

The size of this pod will be 60 square meters. The first and second floor will be 4 meters by 7.5 meters, which is 30 meters squared for each floor; therefore making it in total, 60 meters squared.

There will be 2 storeys because if it the same size as the first floor, it will just give you so much more extra space, and make the user of the pod feel comfortable and free, and cramped in and spaceless.

FUNCTION

The access points of the pod are quite simple, except that there will have stairs to access the second floor. Its roof is completely flat with good leveling, therefore heavy rain won't get collected on the top.

MATERIAL

The pod will be made by brick (that will be painted), and reinforced with cement, and its frames will be wood to help the house aesthetically, and the doors, door frames and window frames will be made out of wood too. Lastly for the exterior, glass for the windows. In the interior, the floor will be made out of dark oak hardwood floors.

SAFETY

I think this pod is safe because the cement and brick maintain the pod to be stable, and its metal reinforcements like every other house inside the wall secures the pod even more, therefore making it safe. Lastly, since it has 2 floors that are the same size, it will make the pod so heavy, making it less likely to collapse.

OWN QUESTIONS

The questions I will ask myself about this design are the following:

- From the materials to the aesthetics, how much will the pod cost?
- How is it impacting the environment negatively?
- Are there any alarms in the pod?
- Can the user live in the pod comfortably?

USER

This design idea does meet all the users requirements because it has a private space for my user to talk to his family, a TV for him to watch cricket, and lots of extra space to watch cricket it with friends. He also doesn't cook, therefore I didn't include a full-sized oven, but replacing it with a stove and a microwave. Finally, it does include indian art for my user to enjoy, but in his bedroom.

My user has praised this pod a lot. They said its modern feel to it is clear, it has lots of windows, which means lots of natural will fill up the pod, it provides so much extra space, making my user. But, maybe too big, and also has a lack of privacy due to lots of windows and glass doors. In conclusion, I think I like this pod a lot, and so my peers.



DESIGN IDEA #4

AESTHETICS

I think this pod is exceptional, looking at its creativity and exquisite design, it does have quite a good quality finish, making it aesthetically exceptional. I think this because the colors of the design fit into its style, its roof makes it exquisite, and adds to its already modern design, and the second floor although placed awkwardly, affecting the pod's function, it is still creative thinking to put it there.

The main colors of my design will be a light oak wood color for the walls and a dark metal color for the roof, and it will be the same for the second floor. Its interior will have the same color of walls, contrasted by the dark oak wood floors, which blends in the mix of rustic and modern.

I have been inspired by a mix of rustic and modern feel to make this design. This is shown by the choice of materials, which implies to how rustic it is. All the walls are wood, like a rustic cottage. But the modern twist it is its layout and its main flat metal roof. This mix is perfectly done and basically fixes its awkward placing.

MANUFACTURE

It will be constructed on site because it does have 2 storeys, and that both contain metal, which makes them heavy, making the job of assembling it after transporting it to its destination way harder and riskier than it already is.

ENVIRONMENT

I think my pod is in a way, sustainable. Although having no solar panels, plants or etc., it still is sustainable as it gets. For example, the amount of windows used can decrease the use of electricity in the morning, its size takes less space than most pods, which is better at least, lastly, it's not portable or use any chimneys, therefore not emitting gases regularly to the air. But although to tried to be as least polluting as possible, it still has its negatives. For example, its large use of wood cuts down a lot of trees, that causes deforestation and contributes to global warming. But its other negative impacts are like in any other house, for example its space it takes up, it can emit gases in some situations, it can affect nearby habitats and etc. Overall, I think this house has a balance of good and bad impacts to the environment.

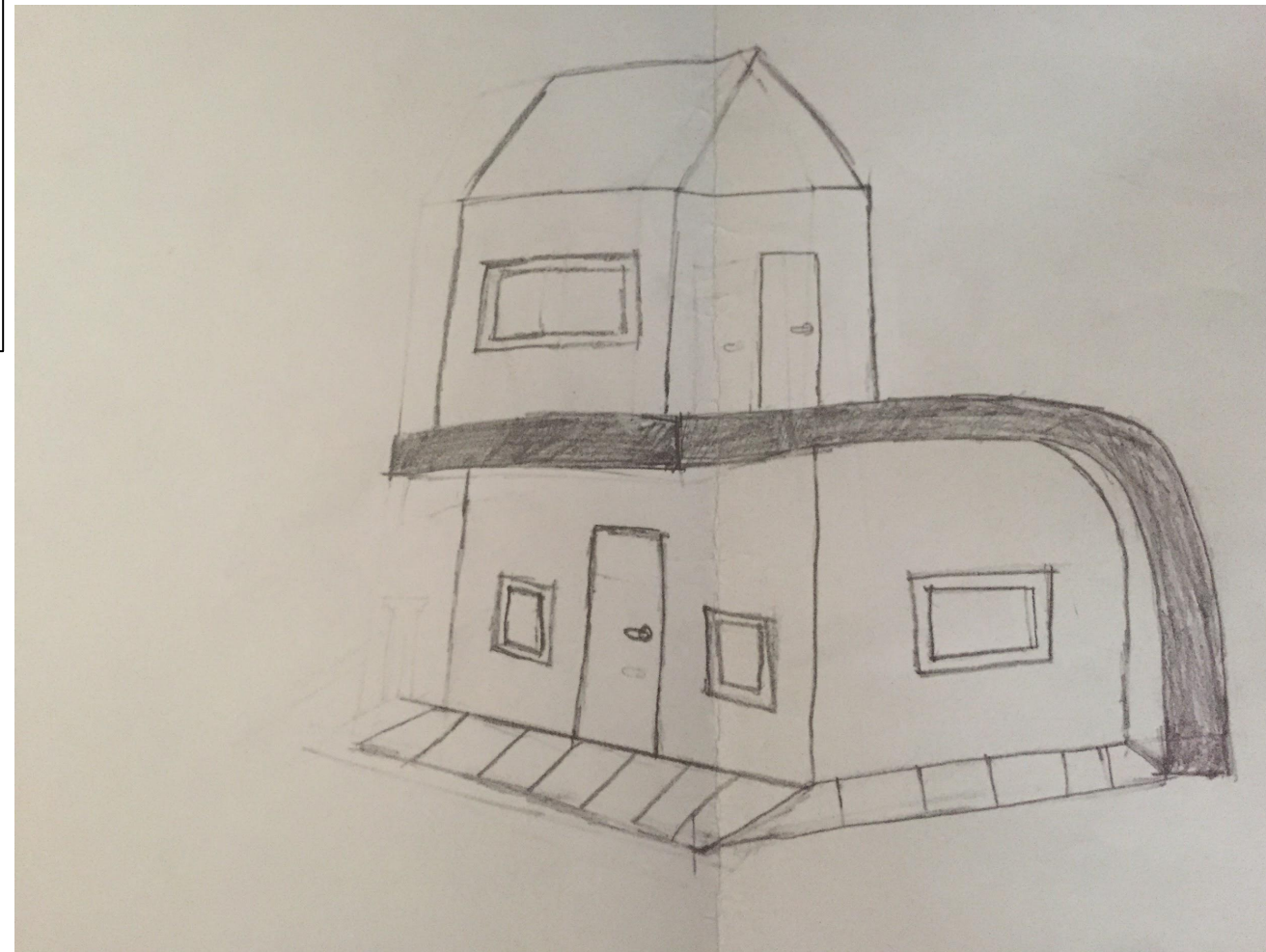
ERGONOMICS

The size of this pod will be 45 square meters. The first floor will be 2 meters by 5 meters, which is 10 meters squared. The second floor will be 5 meters by 7 meters, which is 35 meters squared; therefore making it in total, 45 meters squared.

There will be 2 storeys because the first floor is not big enough to put all the requirements that I set and my user set.

FUNCTION

You enter the house with the front door, and to enter the second floor, there will be a secured ladder to get you to the second floor. Other functions of the house like electricity, water, windows and etc are quite basic.



MATERIAL

The pod will be made out of wood, metal and glass. The walls, floor, window frames, doors and door frames will be wood, which look aesthetically pleasing, also affect the pod's function and safety. The roof will be made out of metal to make the pod stronger, as wood is quite weak against extreme weather. Finally, the windows will be made out of glass, to let in natural light.

SAFETY

This pod can be safer, but safe enough. Its weak walls due to the use of wood could make less safe, since it increases the possibilities of a fire, and can rot as an aftermath of heavy rain. But, the metal roof/wall holds the pod together and it's basically the pod's shield, it can possibly prevent any damage made to the pod, and decreases the possibilities of a collapse.

USER

This pod idea does meet most of my user's needs, because it has a private space for my user to talk to his family, this pod also has a TV for him to watch cricket, and some extra space to watch cricket it with friends. He also doesn't cook, therefore I didn't include a full-sized oven, but replacing it with a stove and a microwave. Although indian art is not a major requirement, I still haven't included there, therefore I did not include all the requirements that were given.

My peers have said some good things like its creative, its not compacted and has some exquisiteness in it. But it also has some flaws. Like the second floor is awkwardly placed, it might be too small, and it has a lack of privacy. These things will help me to not repeat the mistakes I have done with this pod idea, but I am still open-minded and confident about this pod, therefore not a disappointment to me.

OWN QUESTIONS

The questions I will ask myself about this design are the following:

- What can you add in your pod?
- Does it use any outdoor space?
- Does it rely on natural or artificial light?
- Do you think the function of your house is suitable?
- Are you proud of this design, or disappointed?
- What can be added to improve its aesthetics?

Evaluation of Ideas

<u>Specification point</u>	<u>Design #1</u>	<u>Design #2</u>	<u>Design #3</u>	<u>Design #4</u>
The Pod will cost less than it has to, to make a good quality living pod	Yes	Yes	No	Yes
The money that will be invested to the Pod Should wisely to make it	Yes	Yes	Yes	Yes
The money that will be used for the Pod Could be used for luxury things	Yes	Yes	Yes	Yes
The Pod will have a pleasantly looking exterior and interior	Interior - Yes Exterior - Yes	Interior - Yes Exterior - Yes	Interior - Yes Exterior - Yes	Interior - Yes Exterior - No
The Pod Should be have a modern feel to it	Yes	Yes	Yes	Yes
The Pod Could be a mix of modern and rustic	No	No	Yes	Yes
The Pod must have quality furniture, that blend in with the feeling of the house	Yes	Yes	Yes	Yes

Evaluation of Ideas

<u>Specification point</u>	<u>Design #1</u>	<u>Design #2</u>	<u>Design #3</u>	<u>Design #4</u>
The Pod will be functional with a door, bathroom, kitchen, bedroom and living room	Yes	Yes	Yes	Yes
The Pod Should have windows for natural light to come in the pod	Yes	Yes	Yes	Yes
The Pod must have consistent electricity and clean water that my client can access.	Yes	Yes	Yes	Yes
The Pod will be made by hand	Yes	Yes	Yes	Yes
The Pod Should be made with materials like cardboard, laminated sheets and etc.	Yes	Yes	Yes	Yes
The Pod Could be 3D printed	No	No	No	No
The Pod must be designed by hand	Yes	Yes	Yes	Yes
The Pod will have a stove, but not an oven. In replacement, he will have a microwave	Yes	Yes	Yes	Yes

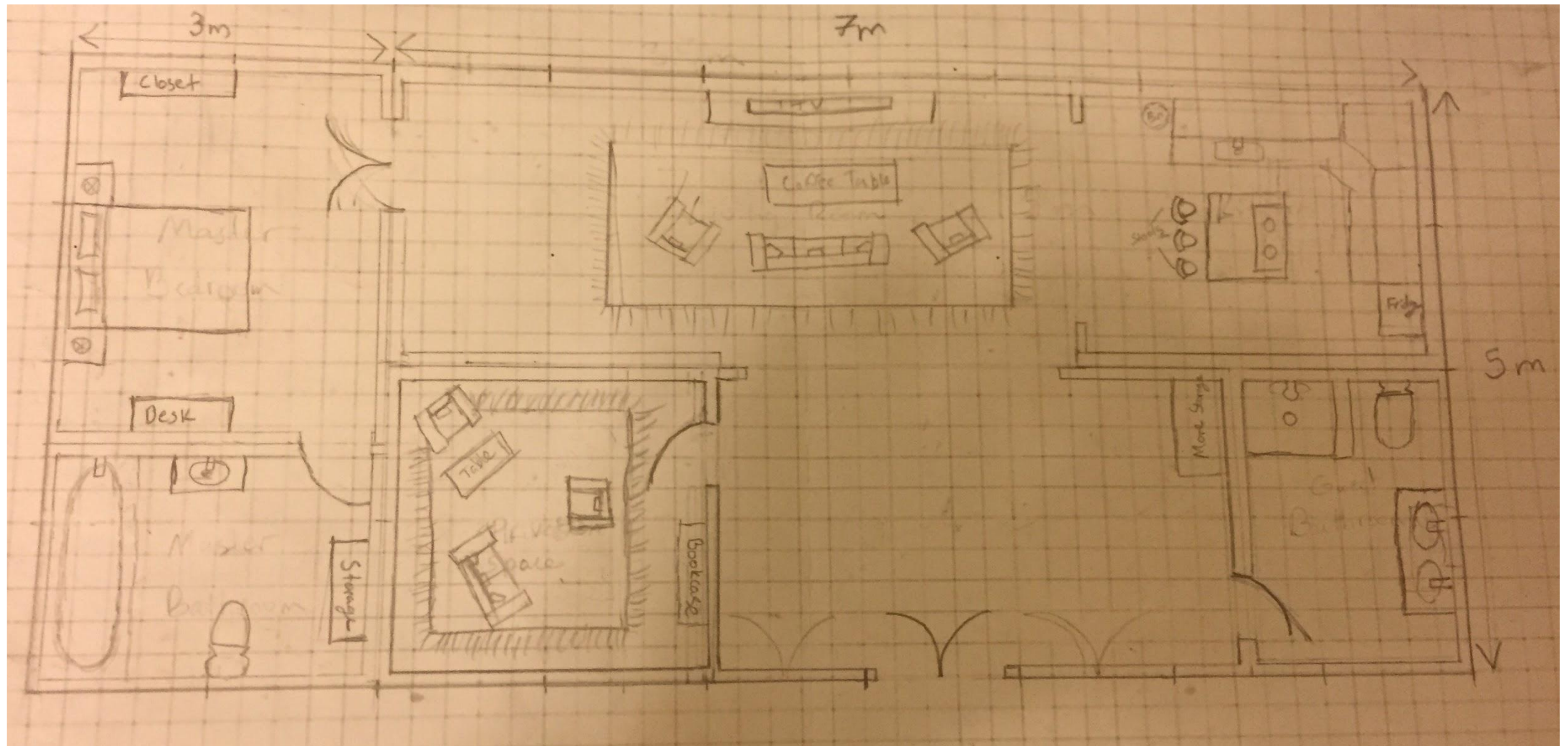
Evaluation of Ideas

<u>Specification point</u>	<u>Design #1</u>	<u>Design #2</u>	<u>Design #3</u>	<u>Design #4</u>
The Pod Should have enough living space for him to sit freely to skype his family, in privacy	Yes	Yes	Yes	Yes
The Pod Could have indian art	No	No	Yes	No
The Pod must have a TV so he can watch cricket	Yes	Yes	Yes	Yes
The Pod will not affect the environment majorly, making it least polluting as possible	Yes	Yes	Yes	Yes
The Pod Should not be around any clean environments that are important since lots of things in a house or living pod that can affect its surroundings	Yes	Yes	Yes	Yes
The Pod Could be a fully green environmental house	No	No	No	No
The Pod must not be polluting, with no chimney bursting out smoke, or a pod too big and making it have to us lots of water and electricity.	Yes	Yes	Yes	Yes
The Pod will be safe enough to handle with bad weather	Yes	Yes	Yes	Yes
The Pod Could have extra pillars to make the roof more recure just incase of any weather issues	Yes	No	No	No
The Pod must be safe and have a structure that must be able to be stable and strong	Yes	Yes	Yes	Yes

Evaluation of Ideas

<u>Specification point</u>	<u>Design #1</u>	<u>Design #2</u>	<u>Design #3</u>	<u>Design #4</u>
The Pod's doors will be at least 2 meters high	Yes	Yes	Yes	Yes
The Pod should have chairs that can be accessed by my user (0.5 meter)	Yes	Yes	Yes	Yes
The Pod must have windows that can be used by my user (1.5 meter above the ground)	Yes	Yes	Yes	Yes

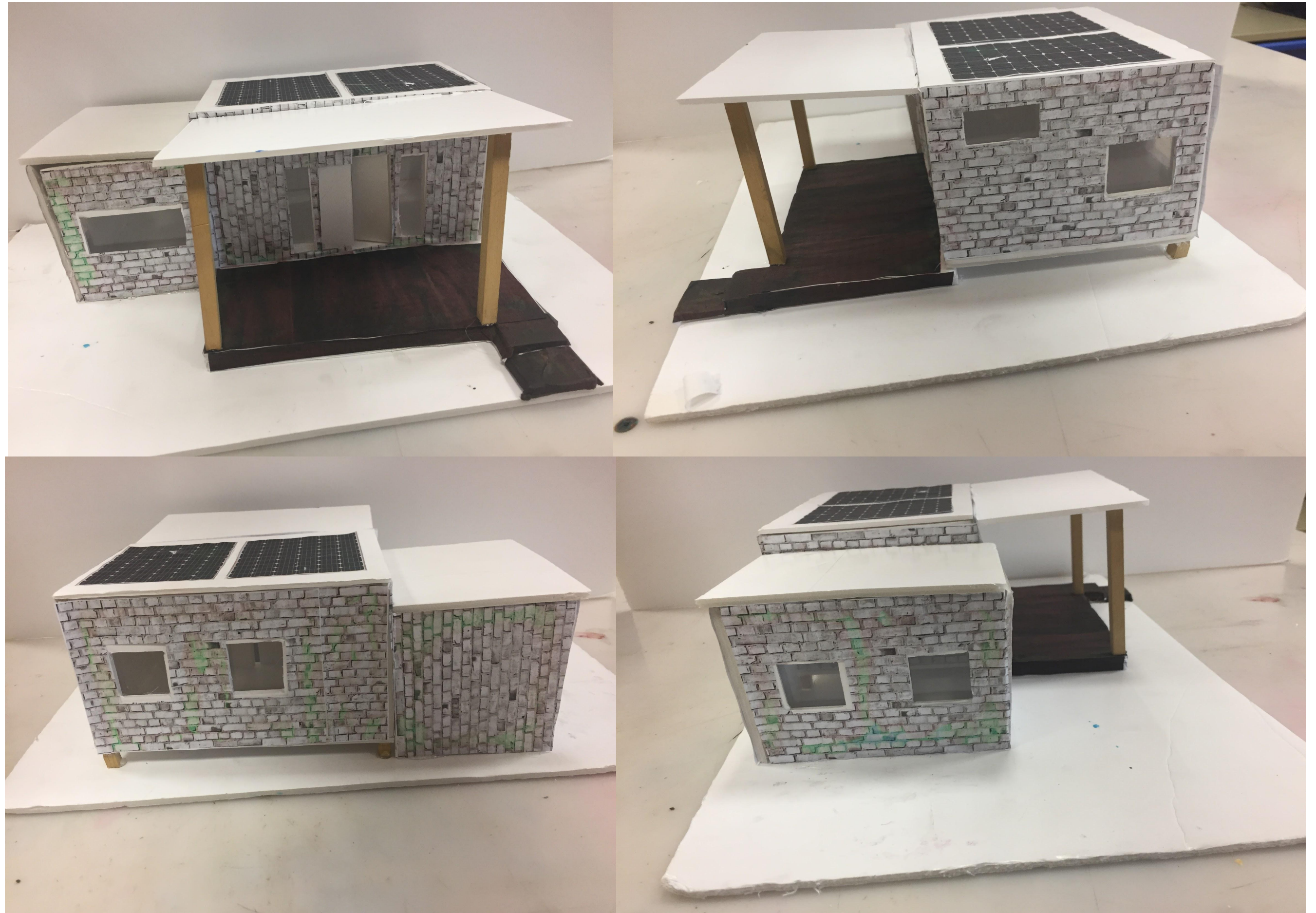
FLOOR PLAN



CREATING THE SOLUTION

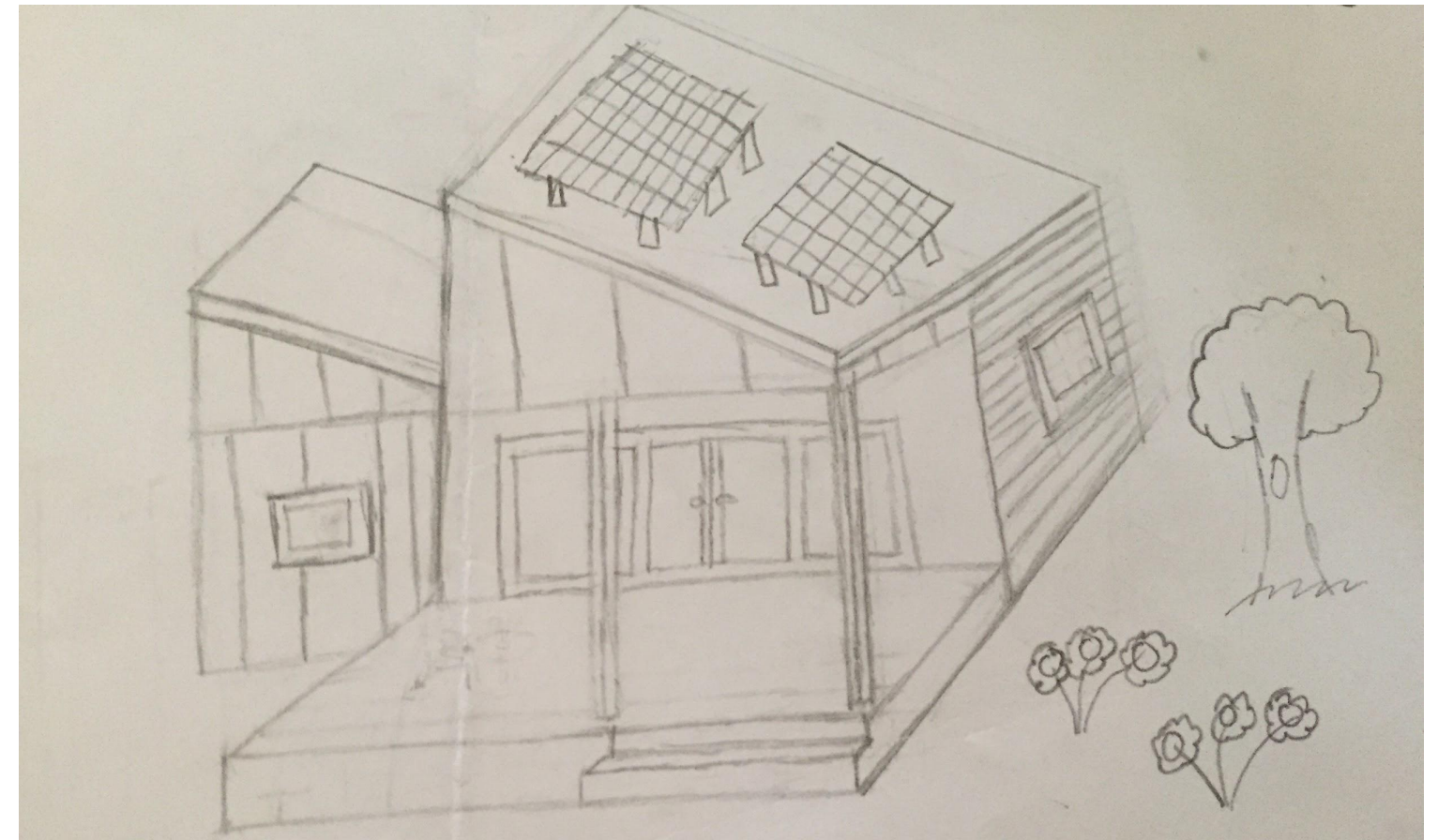
Criterion C:

MAKING – 3D MODELLING



CHANGES AND IMPROVEMENTS

I have done many changes to my original design to make my final one, as shown in the pictures below. One of the main changes I've done is the structure of the roofs of the pod, the roof of the deck, the positions of the pillars, and the material of the pod's walls. Other minor changes are the sizes of the windows and doors. These changes were made mostly to enhance the aesthetics of the house and make the function less complex.



The main reason why I made all these changes is mainly because of aesthetics of the house, and also making it easier to make physically, as the structure of the original design was quite complex and hard to make. By making these changes, the house's function and structure is less complicated, it looks more modern and simple, and by adding and changing the materials of the house, the aesthetic of the house is pleasing and exceptional. For example, by changing the material to brick made the house had more pleasing aesthetics, and had a more modern feel. The change of shape of the roofs and the change of the sizes of the windows and doors also contributed the style (modern) of the house. But these changes and improvements also affect the function, as one of the changes were that the first part of the house is bumped up to be the same level as the deck therefore changing the function entering the other part of the house.

EVALUATING

Criterion D:

EVALUATION AGAINST SPECIFICATION

<u>Specification point</u>	<u>Design #1</u>	<u>How did I do this?/How could I?</u>
The Pod will cost less than it has to, to make a good quality living pod	Yes	This is because I did not put any expensive features, and used the money wisely, and I stuck to my 50m ² limit
The money that will be invested to the Pod Should wisely to make it	Yes	I indeed did not add any expensive furniture to house and focused on its function and aesthetics of a pod, not a luxurious mansion.
The money that will be used for the Pod could be used for luxury things	No	I indeed did not add any expensive furniture to house and focused on its function and aesthetics of a pod, not a luxurious mansion.
The Pod will have a pleasantly looking exterior and interior	Interior - No Exterior - Yes	For the interior, I could have added textures, furniture and added interior walls to make look better. I made the exterior
The Pod Should be have a modern feel to it	Yes	It has a modern feel to it, with the brick and wood, interior materials, and style of roofs all contribute to a modern feel.
The Pod Could be a mix of modern and rustic	Yes	The pod does have some rustic elements, like the color of the brick (gray) and wood (dark). Some of the furniture that will be used will be quite rustic too according to my floor plan.
The Pod must have quality furniture, that blend in with the feeling of the house	No	I could have added modern furniture that will blend in with the style of the house to make the interior look better and improve the function.

<u>Specification point</u>	<u>Design #1</u>	<u>How did I do this?/How could I?</u>
The Pod will be functional with a door, bathroom, kitchen, bedroom and living room	Yes	I did this by putting a functional first door to enter the house, and a door to into the other part of the house. Many windows are scattered around the house giving natural sunlight. 2 Bathrooms, a big kitchen and bedroom, and a living room
The Pod Should have windows for natural light to come in the pod	Yes	Many windows are in every wall of pod, making gateways of sunlight all of over the house.
The Pod must have consistent electricity and clean water that my client can access.	Yes	Consistent electricity is provided by the solar panels, and water provided too.
The Pod will be made by hand	Yes	It is made by hand, with foam board, wooden sticks for the pillars, and plexiglass for the windows
The Pod Should be made with materials like cardboard, laminated sheets and etc.	Yes	It is made by hand, with foam board, wooden sticks for the pillars, and plexiglass for the windows
The Pod Could be 3D printed	No	It hasn't been 3D printed, but I had the option to. If I did, I would have designed on a software instead of by hand, and 3D print it
The Pod must be designed by hand	Yes	It has, by drawing. A exterior and interior (floor plan) drawing
The Pod will have a stove, but not an oven. In replacement, he will have a microwave	Yes	This has been shown in my floor plan, as there is no oven in the kitchen.

EVALUATION AGAINST SPECIFICATION

<u>Specification point</u>	<u>Design #1</u>	<u>How did I do this? How could I?</u>
The Pod Should have enough living space for him to sit freely to skype his family, in privacy	Yes	In my floor plan, there is a room for him to sit down and skype his family in privacy. With lots of space and cozy furniture.
The Pod Could have indian art	No	I could have put that in my floor plan, since it has a favourite of my user
The Pod must have a TV so he can watch cricket	Yes	There is a TV in my floor plan in the living room. There is also room for friends too, to watch with my user.
The Pod will not affect the environment majorly, making it least polluting as possible	Yes	Because of its small space of 50m ² and having solar panels, my pod is least polluting as possible.
The Pod Should not be around any clean environments that are important since lots of things in a house or living pod that can affect its surroundings	NA	NA

<u>Specification point</u>	<u>Design #1</u>	<u>How did I do this? How could I?</u>
The Pod Could be a fully green environmental house	No	I could have added a garden, not use wood to make it even more environmental
The Pod must not be polluting, with no chimney bursting out smoke, or a pod too big and making it have to us lots of water and electricity.	Yes	According to my design and floor plan, there is no chimney, there are solar panels for electricity, and the pod's size is small, since its 50m ² .
The Pod will be safe enough to handle with bad weather	Yes	With strong materials like brick and metal supports, the pod is expected to be strong enough to handle with bad weather.
The Pod Could have extra pillars to make the roof more secure just incase of any weather issues	Yes	There are extra pillar to hold the roof of the deck, securing it from falling and causing any casualties.
The Pod must be safe and have a structure that must be able to be stable and strong	Yes	According to its design, the pod is stable and strong. Insuring the safety of my user.

EVALUATION – IMPROVEMENTS

In my model, I would add a garden to add to its exterior aesthetics. This will also make a more environmental pod, and make the pod look more inviting. It will improve not only the aesthetics of the house, but also its function. As my user can plant fruit trees in the garden, therefore providing food, and it will also need a path to guide people to the entrance of the door. I would also add another floor to the house, therefore replacing the second part of the house. It will provide so much more space in the bedroom and bathroom. Also, it would change its aesthetics, making it look more modern; as most modern houses have 2 floors with a flat roof. Lastly, I would add window and door frames to add more of a modern feel to the house, and improve its aesthetics. These changes would improve and advance my pod into a pod my user would be delighted to live in, instead of living in a house with 40 other people, and a lack of privacy, hygiene, and etc.

I would change my time management skills because if I didn't restart my hand made design, and managed my time more and use my time wisely, I would have made a magnificent handmade pod, and make even better changes and improvements along the way. I would also like to change my measuring skills, as there were minor mistakes in measuring, that has caused problems in the aesthetics of the pod. These changes would have been useful to design and make my pod in the way I wanted to be.

Skills I would like to learn is designing ideas of houses, since I had a little problem with the lack of creativity in making my design ideas for my pod. Some ideas were basic, but if I enhance this skill, I could make more creative and innovative design ideas.

EVALUATION – IMPACT OF THE POD ON THE TARGET USER.

Impact on the Target User

Living with over 40 people, lack of privacy and hygiene, high risks of health problems for the workers, and very cramped and crowded rooms. With their hard work and determination, they deserve more than a dysfunctional house and a low salary. My migrant worker is quite underpaid and is uncomfortable in his current house. By making this pod and giving it to him, it can change his life positively in many ways. He would be able to have privacy, the house would be clean and have no risks of diseases. Also, he could skype his family peacefully, watch cricket with friends and have fun. It will improve his living conditions and everyday life and mood, this can lead to better performance in work, that could lead to a higher salary. These outcomes show that we can reach the goal of having an equal world, with equal rights. One pod to another, we get a step closer to equal rights.

Impact on the Human Rights

My pod helps improving human right laws because 86% of the population in Qatar are migrants (from India, Nepal, Philippines and etc.), and most of them are forced to work for many hours and get underpaid, for example my user works 12 hrs a day and his salary is 4000 QAR, and sometimes not even given on time. These condition disobey the rights of a human, as one is the **Right of Equal Treatment**, and the **Right to Rest**. Also, by changing the dirty and unprivate houses, it will give the **Right to Hygiene** and the **Right to Safety**. By doing this to multiple migrant workers, it can balance human rights laws in Qatar and make it equal.