# Form Exploration

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YEAR 1-  PROJECT 3 - PD 4101-WT 4902 - 30.04.2025

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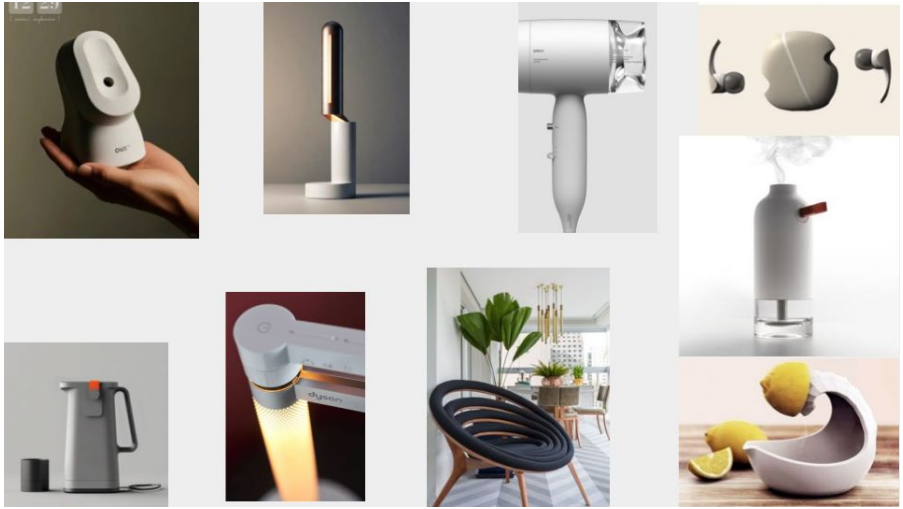
# Project Statement

Design and build a portable product that purifies air in indoor environments. It must be carriable in one hand and have an air in and air out opening. The main focus is on your design aesthetic which can be anything you can imagine, as long as it is inspired by contemporary design.

Bringing sketched ideas from paper to refined prototypes is very challenging, but an ability all product designers should have. This project will help you to develop this skill through iterative sketching and prototyping.

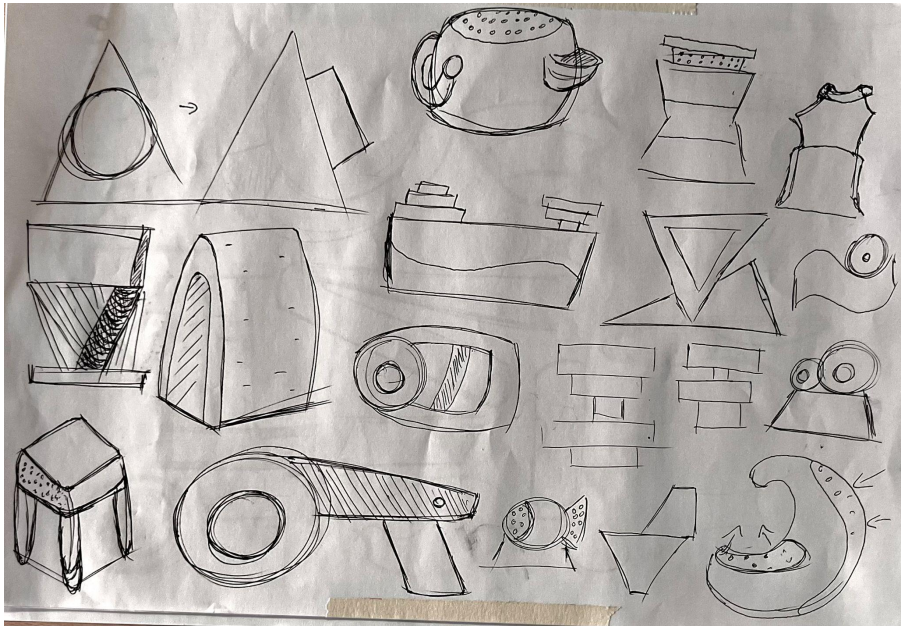
# Mood Board

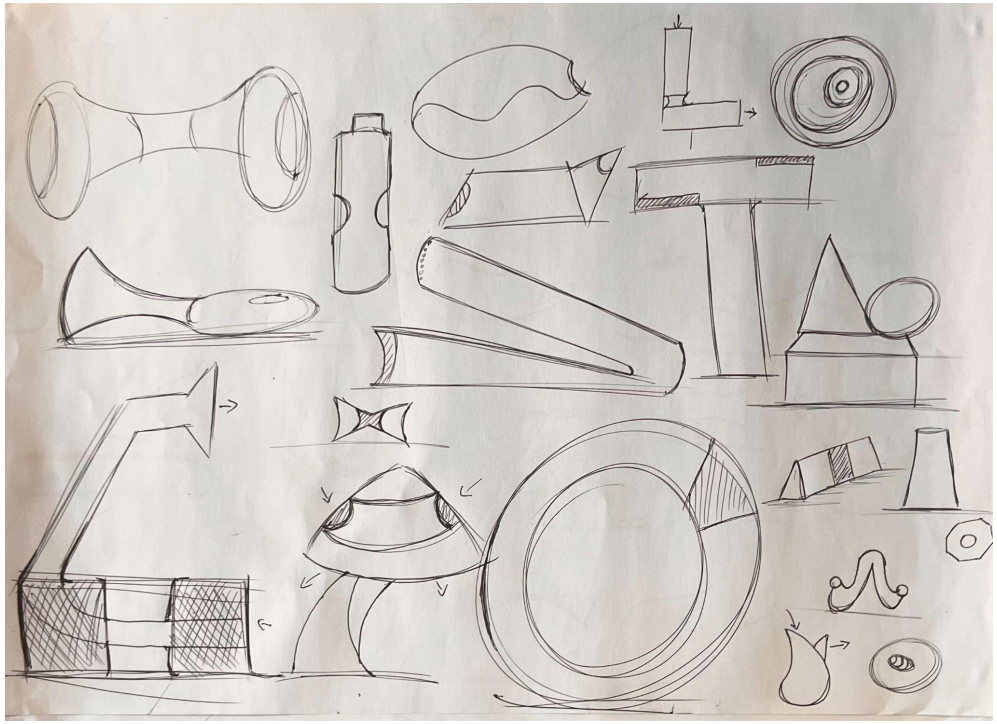
Making the mood board was the first step in this project. This included looking for inspiration in general contemporary design that will motivate my design process and reflect throughout my work. It was very important to learn what i liked and didnt like before starting the next step. This is the style board I used throughout. An important step that was relevant to the style boards was comparing them with other students and learning from each others findings.

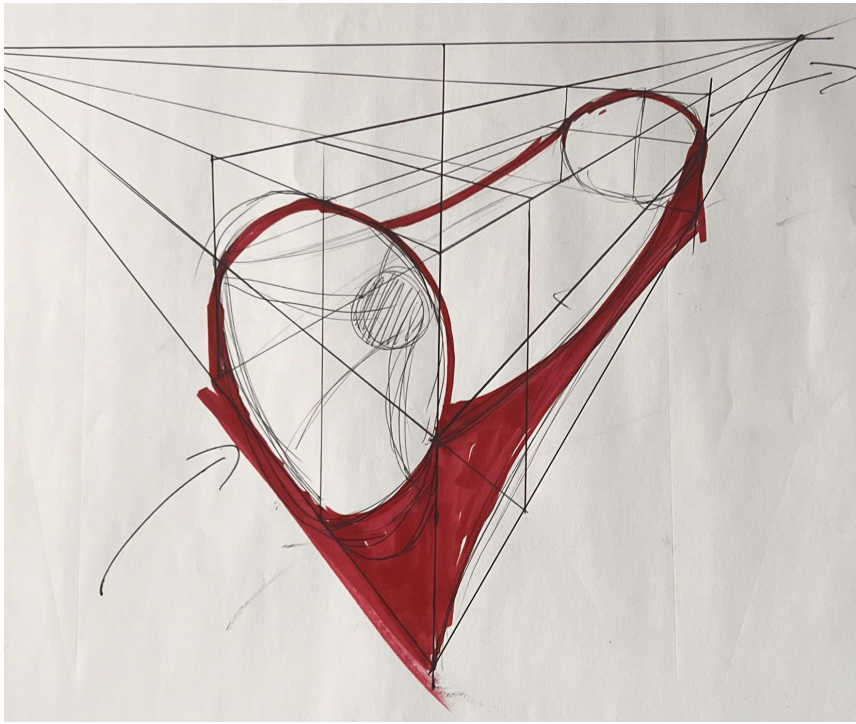


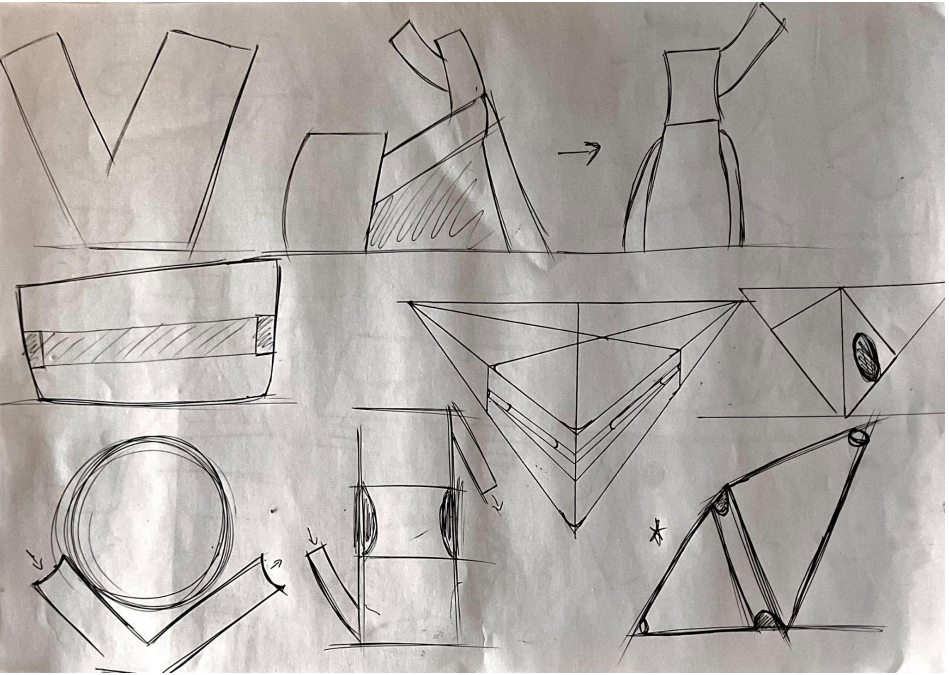
# Ideation

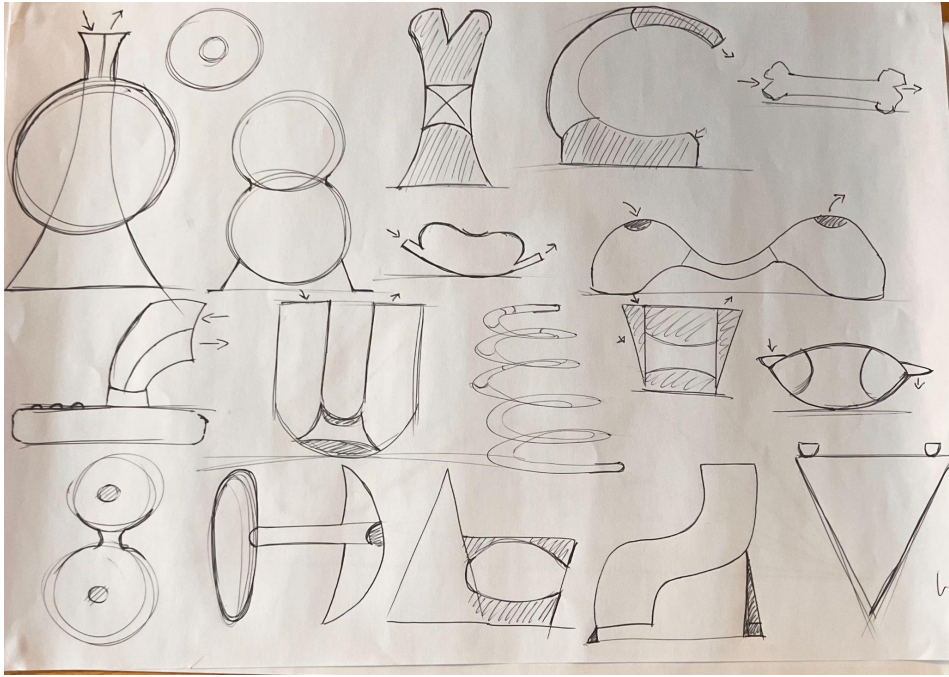
It was important to start of with some sketches. The sketches helped me decide where to start and which direction i should follow.









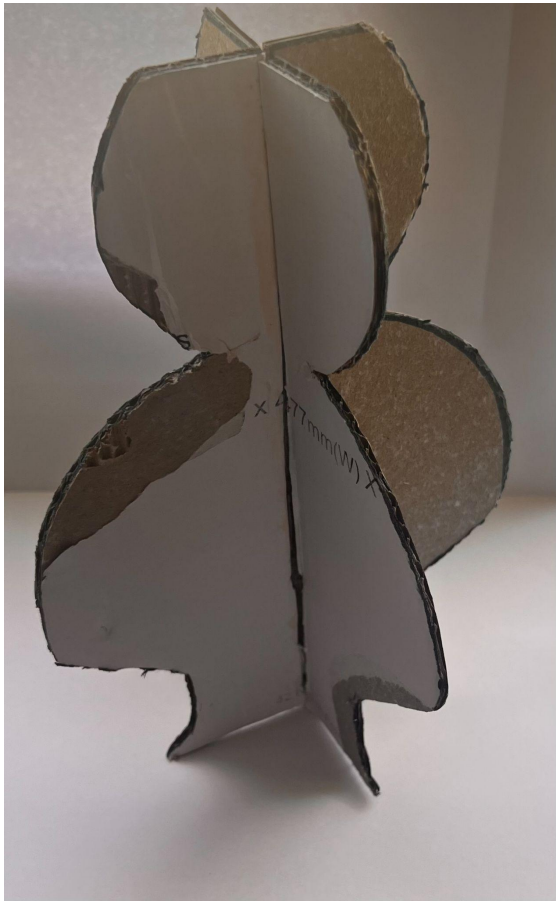


# Prototpying

After the ideation stage, I came to the realization that my creative process is most effective when driven by hands-on experimentation. Rather than spending extensive time in the conceptual phase, I found that moving directly into prototyping allowed me to explore ideas more fluidly and intuitively. This approach helped me translate abstract thoughts into tangible forms, making it easier to evaluate and refine them. I produced a series of diverse prototypes, each capturing different aspects of my ideation and style board. These models not only reflected my evolving aesthetic but also allowed me to test structure, form, and materiality in real time. Through this iterative process, I gained valuable insights that shaped the direction of my project and deepened my understanding of how physical making can inform design development.

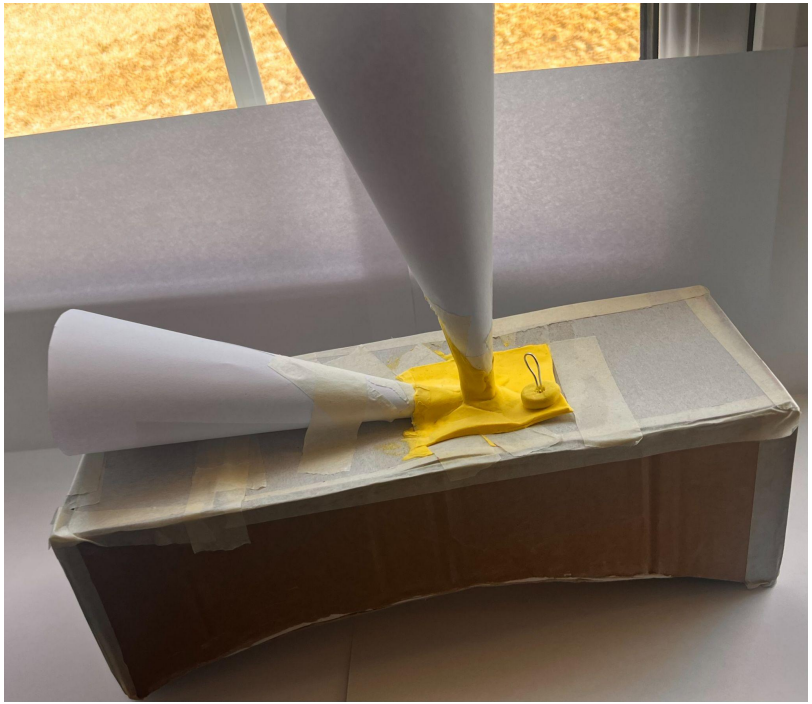
# Prototype 1

This was my very first messy prototype which has a very curvy and relatively simple shape. I haven't fully decided upon where the air would come in or come out. This first model helped me start my creative process.



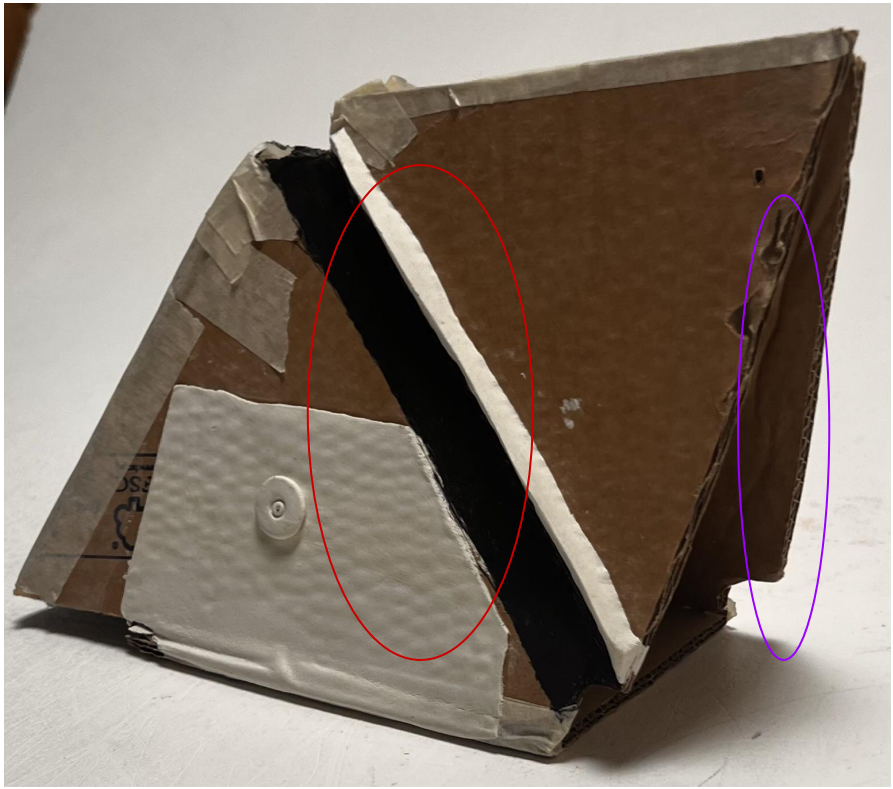
# Prototype 2

This model required a lot more time as i tried to incorporate clay. The texture of this specific type of clay was very spongy and play-doh like, I decided to only us this for very small details. I liked the small addition of buttons or imagining how the product would actually work.



# Prototype 3

This was a prototype i thought about developing further. At first the model was meant to stand in a different position and it made me think about if that exact shape did not suit the idea. I decided this position would be much better. I have also used a different type of clay that worked much better upon application. This model would have worked in such way that, the center section (red oval) would suck air in and the purified air would come out at area marked with a purple oval.



# Prototype 4

This is another model simply made out of paper. I used open origami boxes and stacked them one on top of the other. The idea was for the air to go under the large top box and come out on top. I believe this model helped me move onto more curved models by being a very simply shaped form.



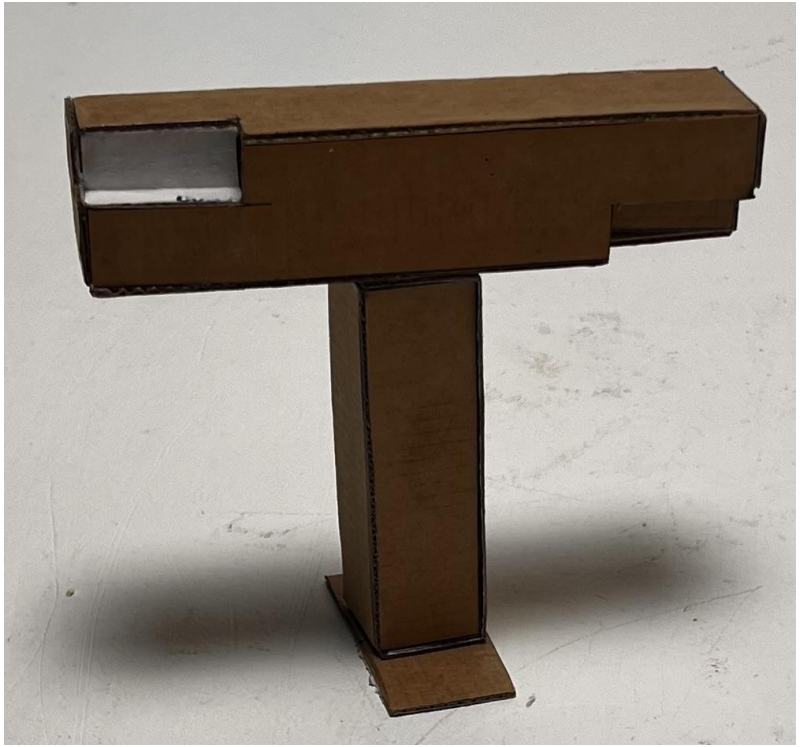
# Prototype 5

This was my first round prototype. I have gained a better familiarity with the process of making creases with an exacto knife on the cardboard to make the cardboard more malleable and form easier into a preferred shape. This model inspired me to make my final model however, I have accidentally drenched this specific model using oversaturated clay which was also a learning step.



# Prototype 6

This model is specifically brought from my ideation sheets. I liked the form of this idea however i saw how the shape isn't very stable and hence the bottom has to be supported by a piece of cardboard. The air in and air out system was very interest to figure out though and i would like to incorporate this type of model in future projects.



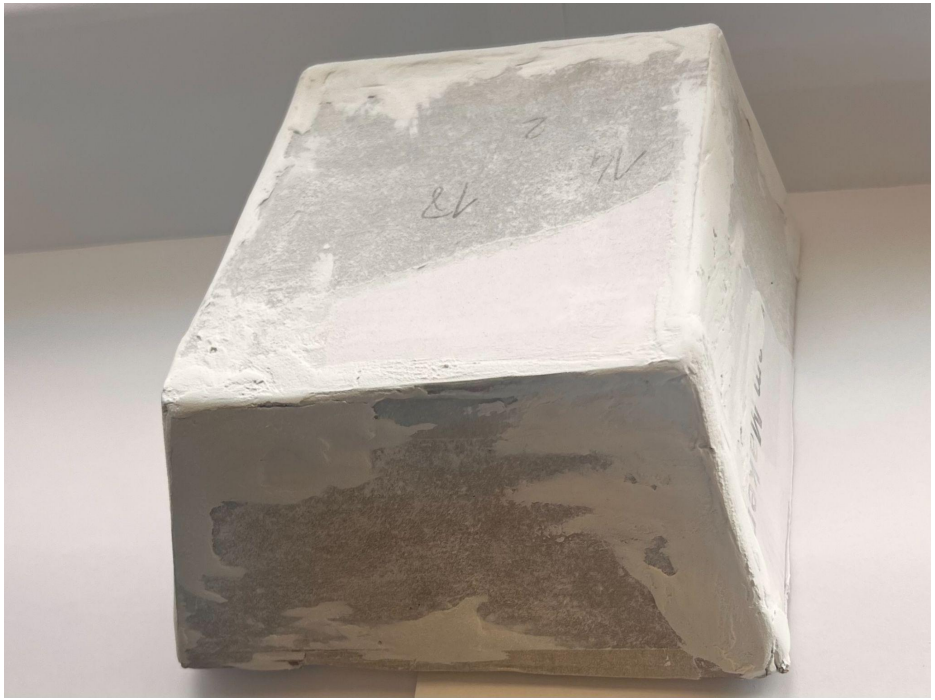
# Prototype 7

This prototype mixed ideas of #3 and #5, which resulted with this shape. This was another consideration for a final model but it definitely helped me move closer to it. I started to consider to use a clay substitute , I also tried to spray paint as see how it would look on a model made out of cardboard. I liked learning the overall shape.



# Prototype 8

This wasn't a definite model but I ended up thinking if using it as a sort of podium for my final project. The idea was related to my ideation but I decided to move onto the final.



# Prototype 9 (Final Prototype)

After developing several prototypes, I selected my favourite designs and drew inspiration from their most successful elements. These models helped me establish a visual language that felt cohesive with the themes in my style board. I was particularly drawn to soft, rounded forms and the idea of layering circular shapes, which I felt communicated cleanliness, airflow, and simplicity all important qualities for an air purifier. The overall shape I pursued was composed primarily of these round, organic forms, arranged in a stacked or layered manner.

At this stage, my focus was more on exploring aesthetics and form rather than fully resolving the functional mechanisms. While the shape was beginning to take form visually, I hadn't yet fully considered the technical aspects such as how the air would flow through the product, where filters would be placed, or how users would interact with it. This allowed me to work freely with shape and composition, but I recognized that the lack of internal planning meant further refinement would be needed in the next stages. It was a valuable part of my iterative process establishing form first, then allowing that to guide my thinking around function and usability moving forward.

# Making General Form

I had to find where to place the circles on top of eachother and i wanted to correlate the model to the style board. I really started to like the shape but then i had a problem with the uncovered sections seen in the picture. I continued to move forward with this idea.



# Clay and Polyfill

I used two different ways to fill and smooth the crevices and creases. I wanted to reach a plastic like look and I wanted to find the most efficient way to do it. I used polyfill as it was possibly the best material to make the surface smooth and it was hard to reach a good outcome with just clay. I realised that with just clay it was more prone to cracking and it was much easier to sand down the mix.



# Shaping and Sanding

This is the model after sanding and covering obvious cracks and started to think about the mechanisms. Here I was considering just a simple filter on top but i decided that does not look right or fit the model.

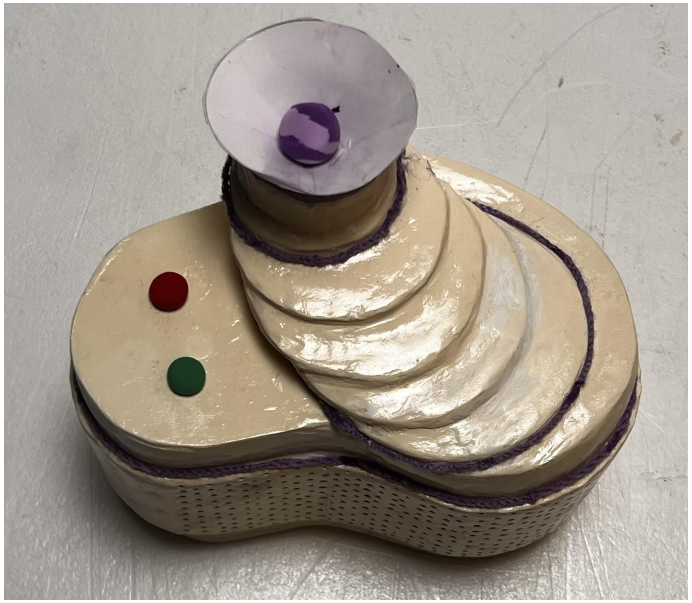




# Final Outcome

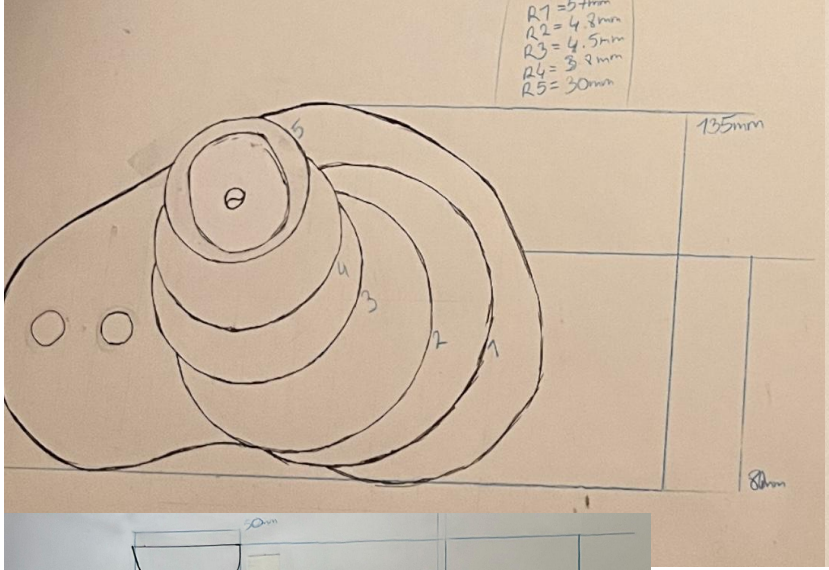
I finally developed the design and decided that the air filter will be around the main curved body of the filter. The “air out” filter comes out on top with a detachable top funnel which better distributes the air around the room instead of simply shooting the air up into the ceiling. The funnel is removable to ease cleaning and also to be able to see the inside filter I have tried to make. Furthermore made small buttons to add a possible way of turning on and off the actual product. Quite obviously the green being the on , the red being the off button. I believe the final is reflective of my use of the styleboard and has clear development between all my models.

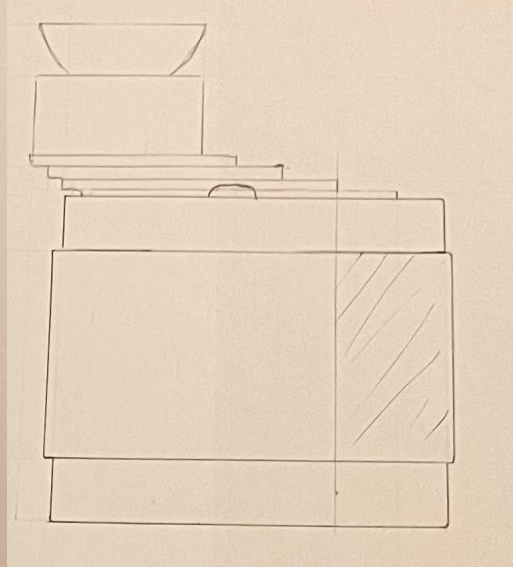
# The Model

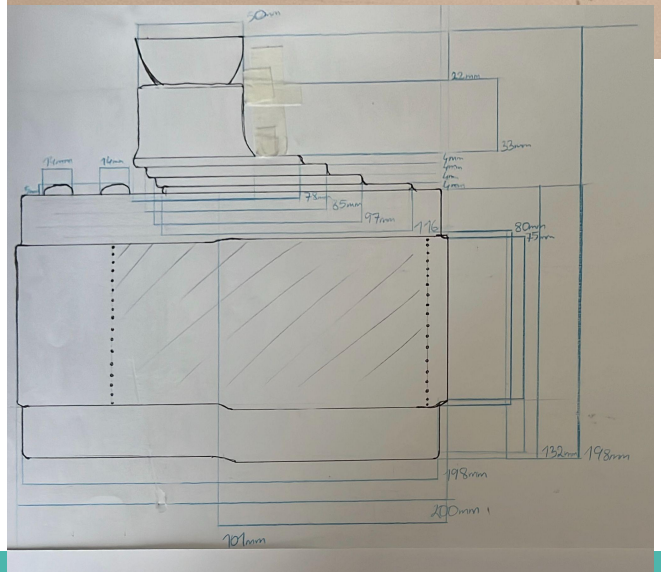








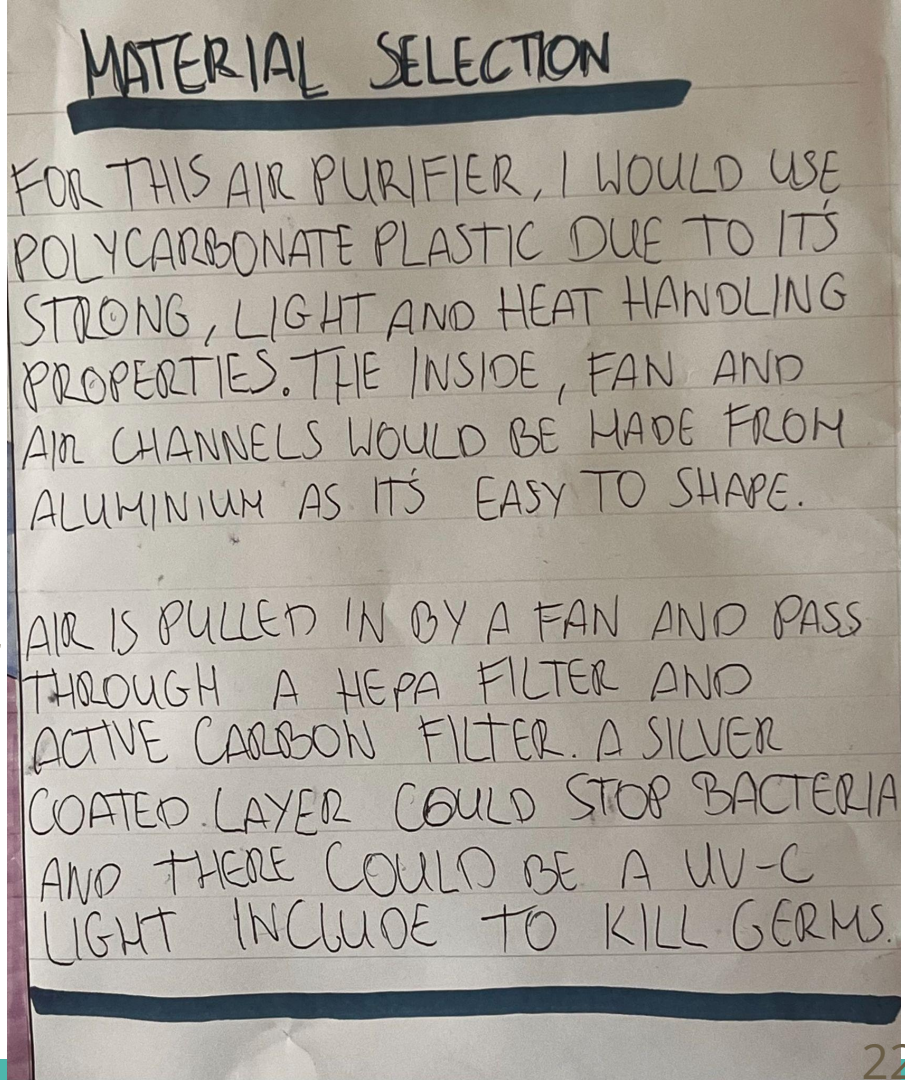






# Orthographic Views

# My Final Presentation

This is the material selection section of my final presentation board. Upon research and investigation of some of the purifiers i have at home, I have found the most optimal materials that are commonly used and are suitable for the product type i researched.



I really wanted to add an in context section of the model. This would show how it could look in a room and have an idea of size in relation to a plant pot on top of a counter.

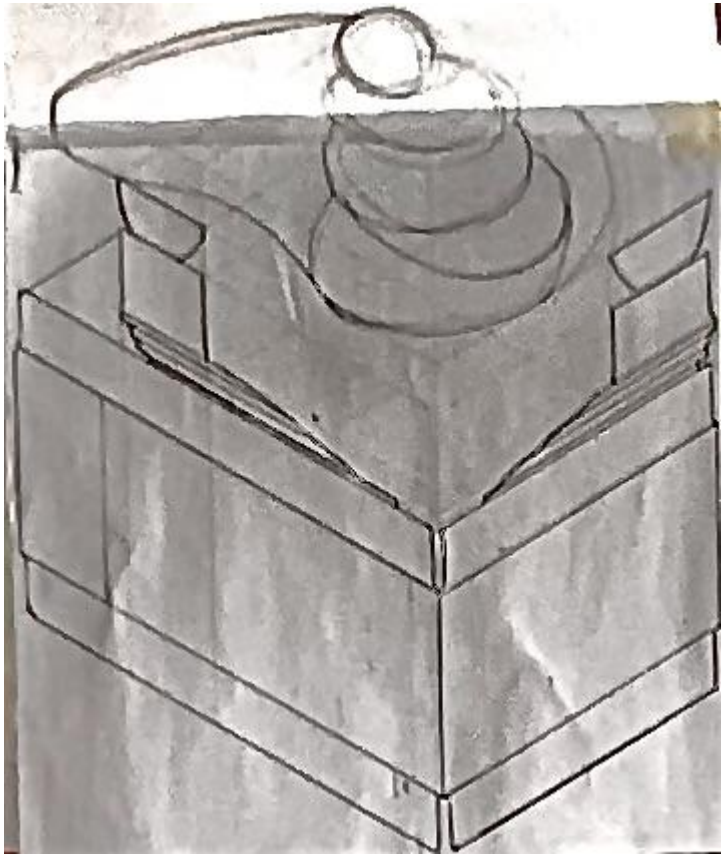
The colourful background helps for the model to stand out and pop out at the viewer.



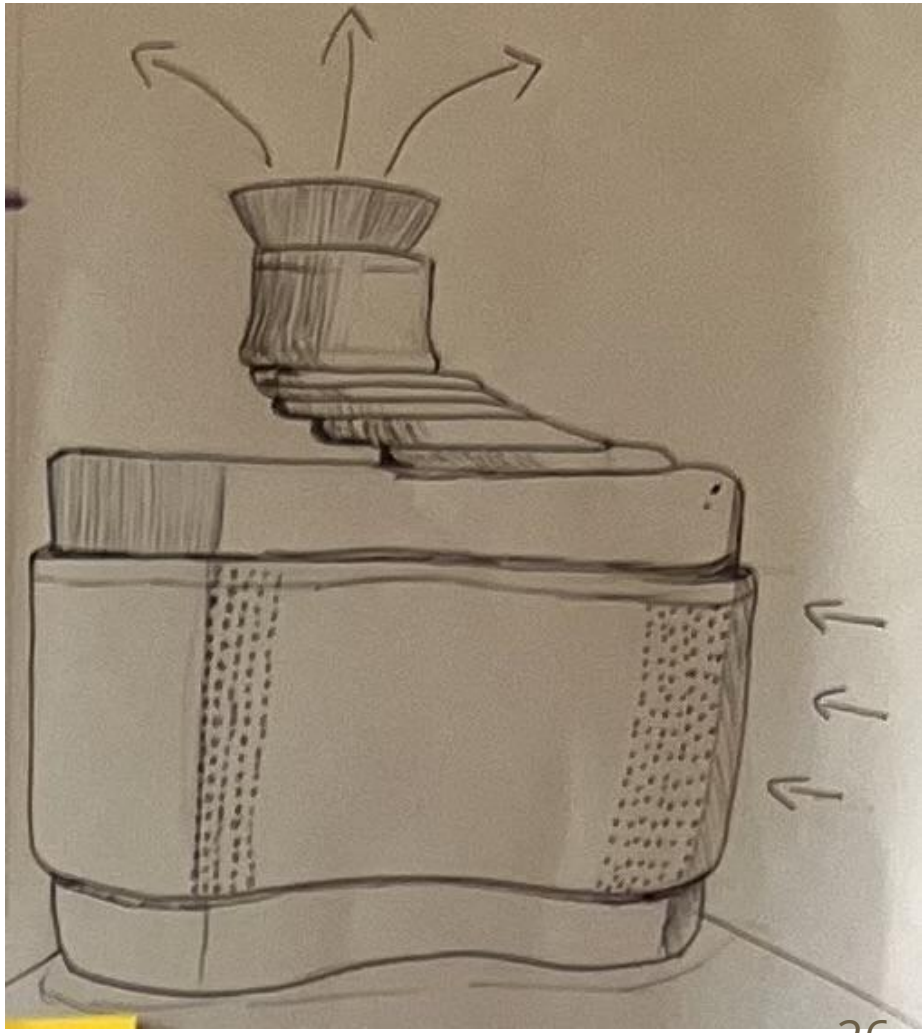
This part was for specific features of the model which i deemed important to point out. A view of the air filters are clearly pointed out.

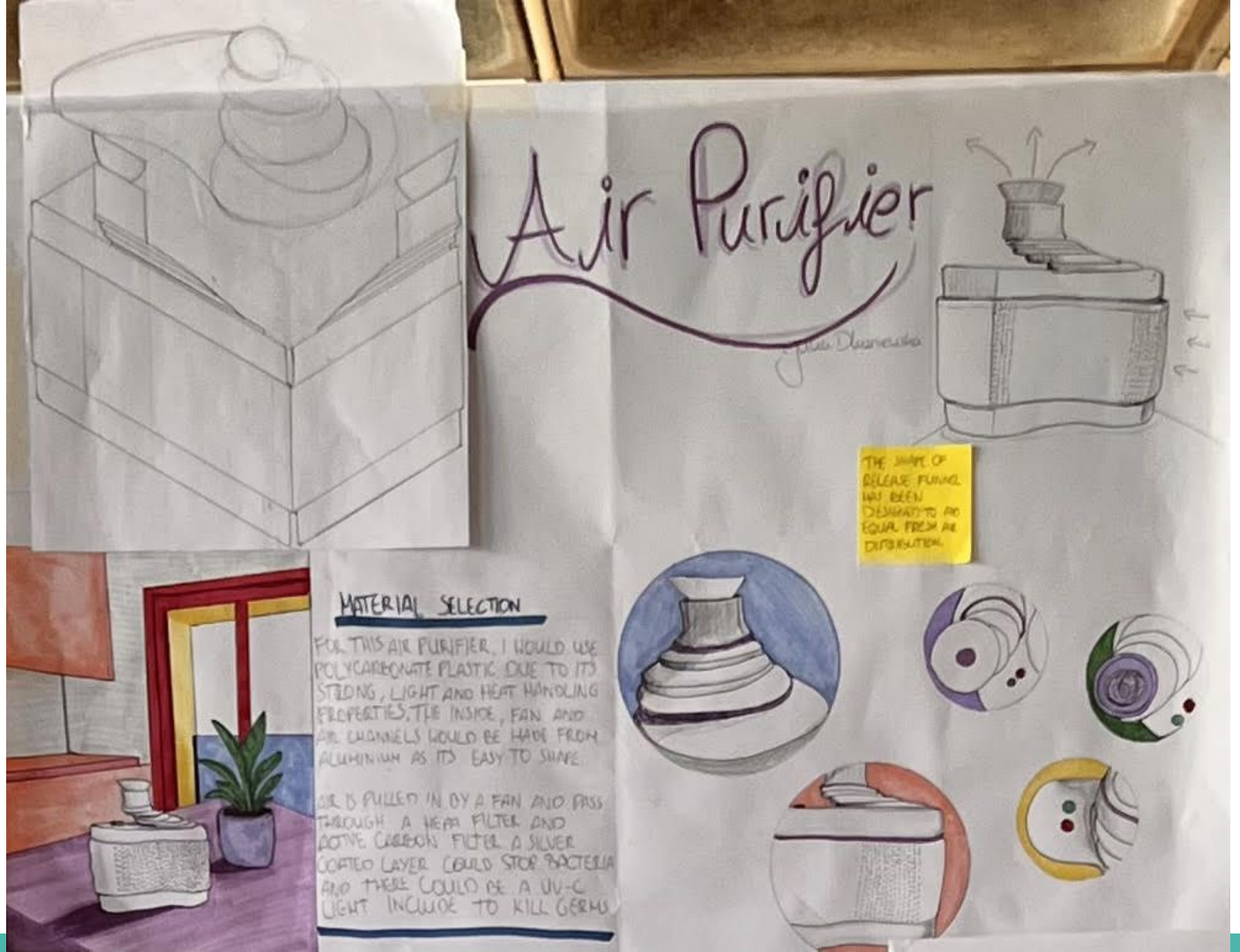


This was a very experimental and challenging part of the presentation board as it was hard to draw the isometric projection on the basis of my orthographic drawings.



I wanted to incorporate a drawing in the style of my learning contract. No colour was added to this drawing and the general idea of the filtration system is pointed out my the arrows




Air Purifier
THE SHAPE OF RELEASE FUNNEL HAS BEEN DESIGNED TO AID EQUAL FRESH AIR DISTRIBUTION.
MATERIAL SELECTION
FOR THIS AIR PURIFIER, I WOULD USE POLYCARBONATE PLASTIC DUE TO ITS STRONG, LIGHT AND HEAT HANDLING PROPERTIES. THE INSIDE, FAN AND AIR CHANNELS WOULD BE MADE FROM ALUMINIUM AS ITS EASY TO SHAPE.
AIR IS PULLED IN BY A FAN AND PASS THROUGH A HEPA FILTER AND ACTIVE CARBON FILTER A SILVER COATED LAYER COULD STOP BACTERIA AND THERE COULD BE A UV-C LIGHT INCLUDE TO KILL GERMS

# Reflection

This project was a great opportunity for me to explore how I work best as a designer. I started with a style board to set a clear visual direction. From there I moved into sketching but I quickly realized that I'm much more comfortable developing ideas through making. Prototyping became my main method. Each model helped me test out different forms, materials and concepts in a more hands on and intuitive way.

I was especially drawn to rounded, layered shapes. They felt soft, calm and clean which were qualities I thought were perfect for an air purifier. I explored these forms across a series of prototypes. Gradually refining my ideas with each version. Some models helped me understand balance and proportion while others gave me insight into construction and airflow.

That said I definitely focused more on form than function at first. It wasn't until later stages that I really started thinking about how the product would work,where the filters go, how air flows through and how users would interact with it. This taught me the importance of developing form and function together rather than one after the other.

By the end I had a final prototype that felt true to my vision: soft, minimal and user friendly. While there's still more to refine ,I've learned a lot about my own process and how valuable iterative making is to my way of thinking. I'm excited to take these lessons forward into future projects.