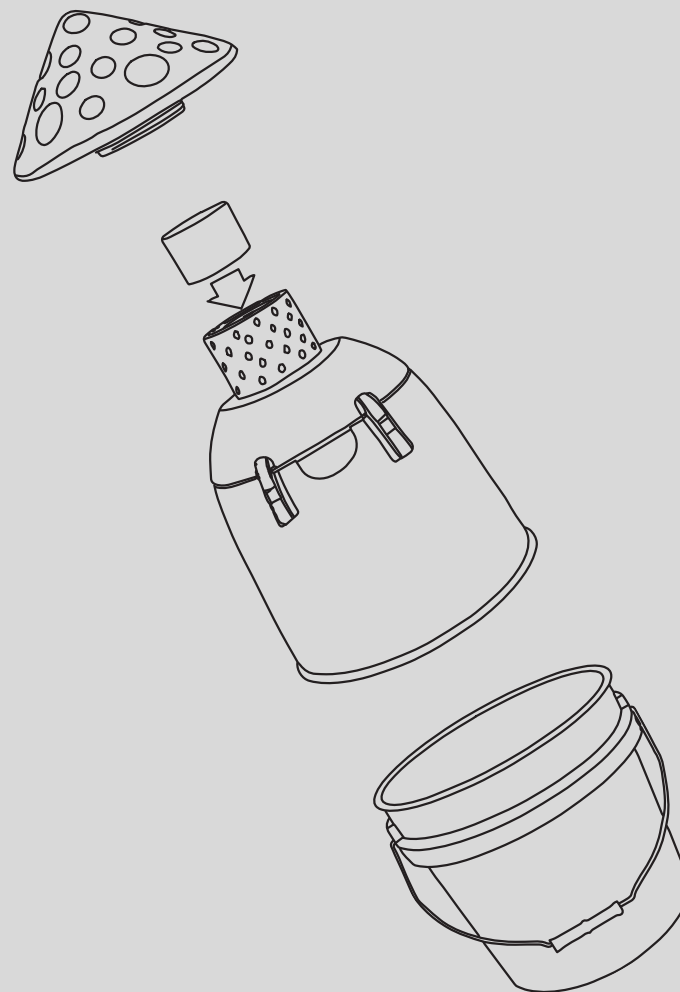




OMBRELLO

MODULE #2: HARDGOODS PLUS, WEEK 6-11
(2/19-3/29)
PROCESS BOOK

Alex Gillingham



○ Hard Goods – Gardening

Design Prompt:

Gardening: the act, activity, or pastime of planning and cultivating gardens.

(garden: a small piece of ground used to grow vegetables, fruit, herbs, or flowers.)

Target User: Age 55+

Project objective:

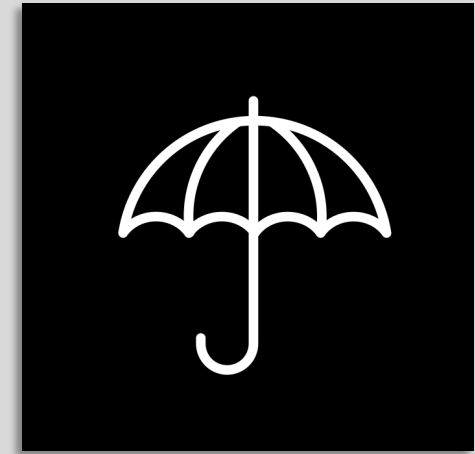
The general goal of this introductory studio project is to allow students to gain knowledge about hard goods research, design, and prototyping techniques. Students will build insights and develop opportunity statements to drive their design. Students will acquire basic research skills by developing interview questions and performing interviews. Students will practice communicating their ideas visually and physically. Students will also gain marketing knowledge as they develop packaging for their product to be purchased in a store or online.



- At the start each student team (2 students) will be given 3 words to describe their brand, and an icon to serve as their start place for a logo.

Three Words: **Complete, Macabre, Paltry**
Icon: **Umbrella**

Our Logo



- From the three words provided, "macabre" emerged as the most a relevant theme guiding our product's overall concept. Defined as a grim or ghastly atmosphere, it suggests a focus on darker and more unsettling elements.





The Team



Isaac Kohls (Designer)

Interviewed: **Steve Kohls** (Isaac's Dad)
25years Experience.



Alex Gillingham (Designer)

Interviewed: **Ernie Frye** (papa)
50years Experience.



A common Pain/Gain point both interviews had was the composting process and the smells it produced.

Interview Questions And Answers

Question: Is there a task about gardening that you do not like doing or is hard (for you) to do?

Answer: Turning over the garden. Setting up the garden with different veggies, have them set up in a fashion where they don't over grow each other. Sometimes composting can be a daunting task.

Question: Can you describe a technique you have developed for gardening that other people do not do?

Answer: Green house (dome) for early stages of garden. Uses hog fence and tarp. Protects from bad weather. Then later uses hog fence for peas to grow on. Composting is key to a prosperous garden.

Question: Can you describe a technique you have developed for gardening that other people do not do?

Answer: I am not sure if other people use as much manure/fertilizer as I do. I find it very beneficial for my garden/farming.

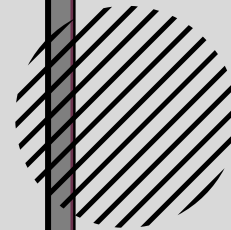
Question: What kind of tools do you use? What tool do you use but dislike using the most? Why? What makes it uncomfortable, unpleasing, etc.? What part of it is the problem?

Answer: We use hoes, shovels, rakes, tillers, manure spreader. I did not like using the manure spreader (smelled horrible).





After our interview we created a
target persona and a How Might We
Statement to better help our product
fit into a target audience.





TONY THOMAS
52 YEARS OLD



Columbus, OH



Shop Owner



Jeep Wrangler



Wife, Two kids, Dog

WORK LIFE



- Occupation: Shop Owner
- Clothes: Sweater Jacket
- Transportation: Jeep Wrangler

HOME LIFE



- Clothes: Athleisure
- Type of home: Town Home
- Decor: Contemporary Modern
- Family: Wife, Two kids (Son and Daughter) moved out, Huskey



GARDEN TOOLS

- Hoe
- Shovel
- Pitch Fork

COMPOST WASTE

- Produce Kitchen Scraps
- Egg Shells
- Grass Clippings
- Leaves

PRODUCE

- Tomatoes
- Peas
- Cucumber
- Corn
- Onions
- Peppers
- Carrots

COMPOSTING



GARDEN

- 12 ft x 16 ft Garden
- 12 ft x 3 ft Compost Area
- Raised Bed
- Fenced In

○ How Might We Statement

How might we minimize the bad smell and improve the process of composting?

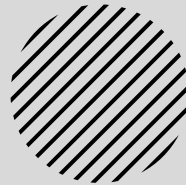


Research

We explored many areas of composting and fertilizing. Some were spreading and others were trying to minimizing the smell.



- Inground worm composters work much faster and have little to no hard labor. The worms do everything.



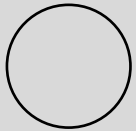
- Sealed System composting

- We found that Carbon Air Filters were a great solution for the smell.



You can use the double-sided tape to adhere this filter to your compost bin if there is no specialized fitment for filters

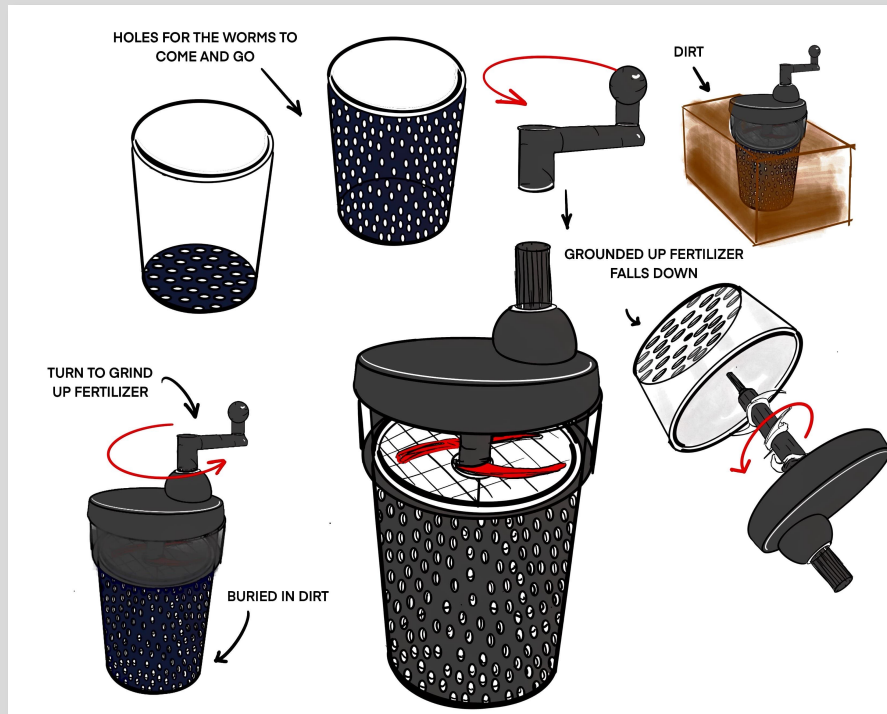
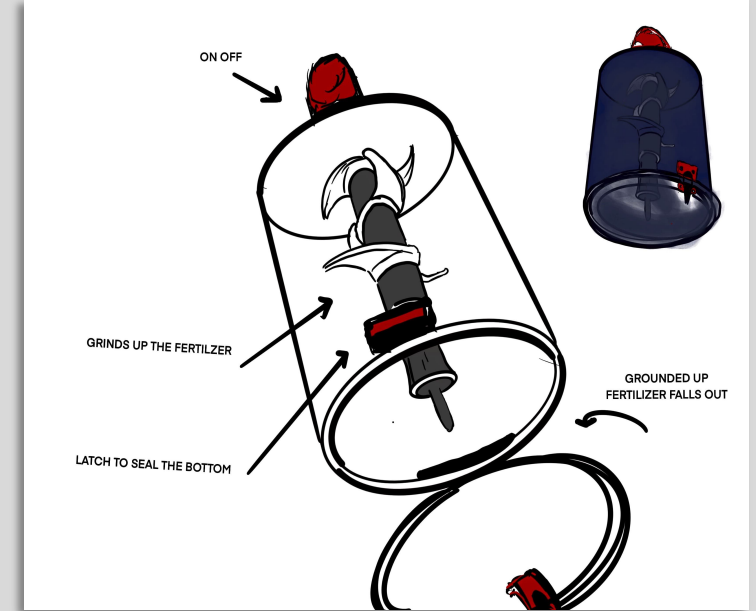
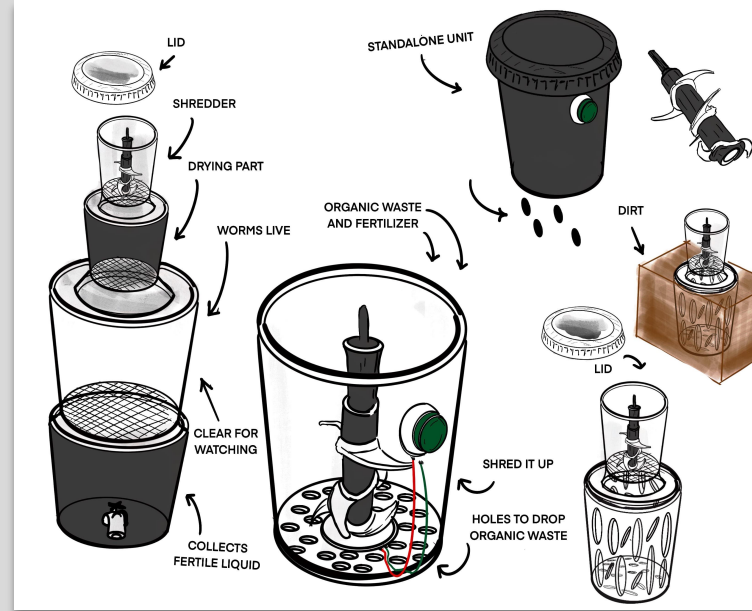




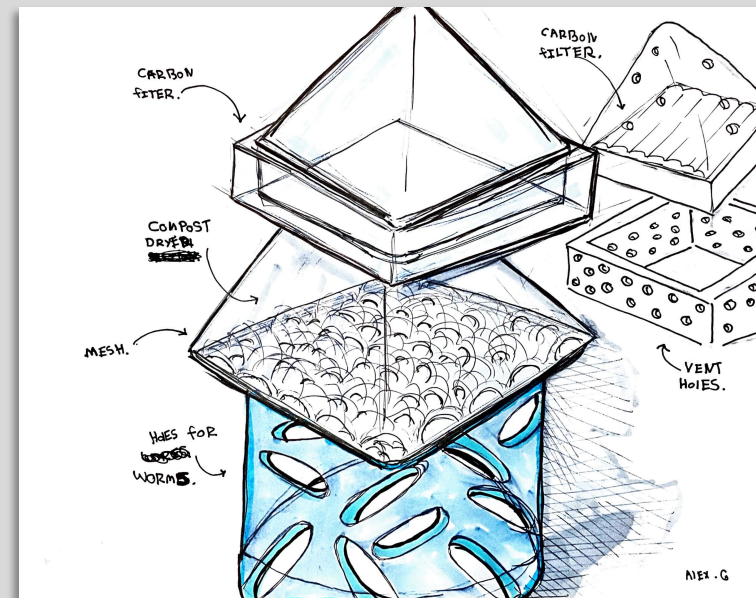
Next individually we each produced
30 different ideas based on our
composting research.

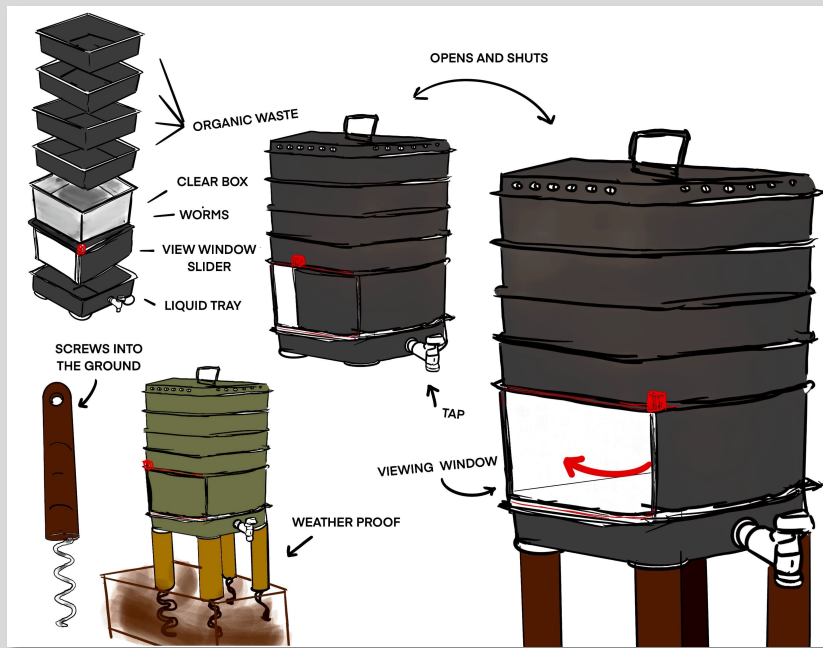


Compost Sheared Idea.



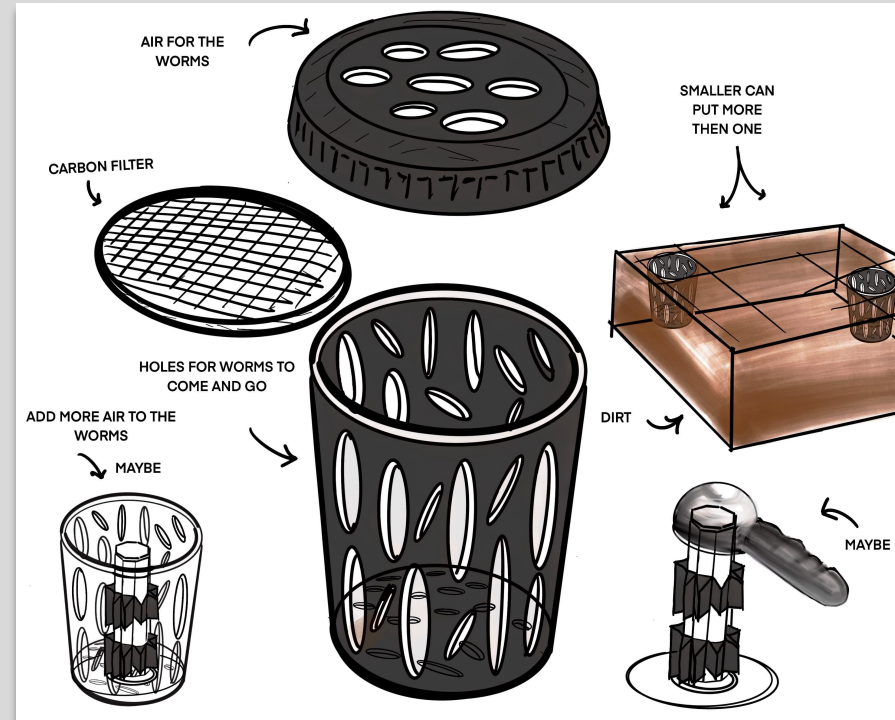
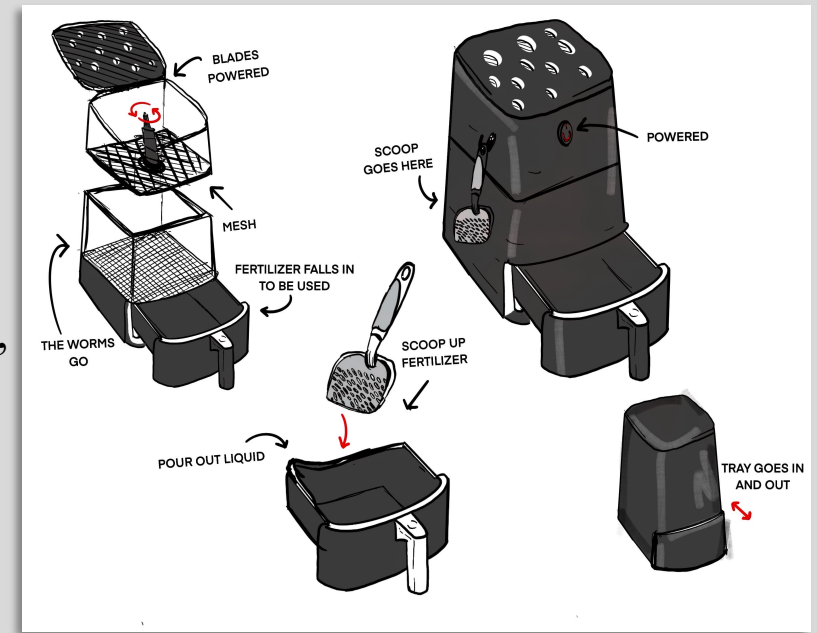
Inground Composter With A Filter System.



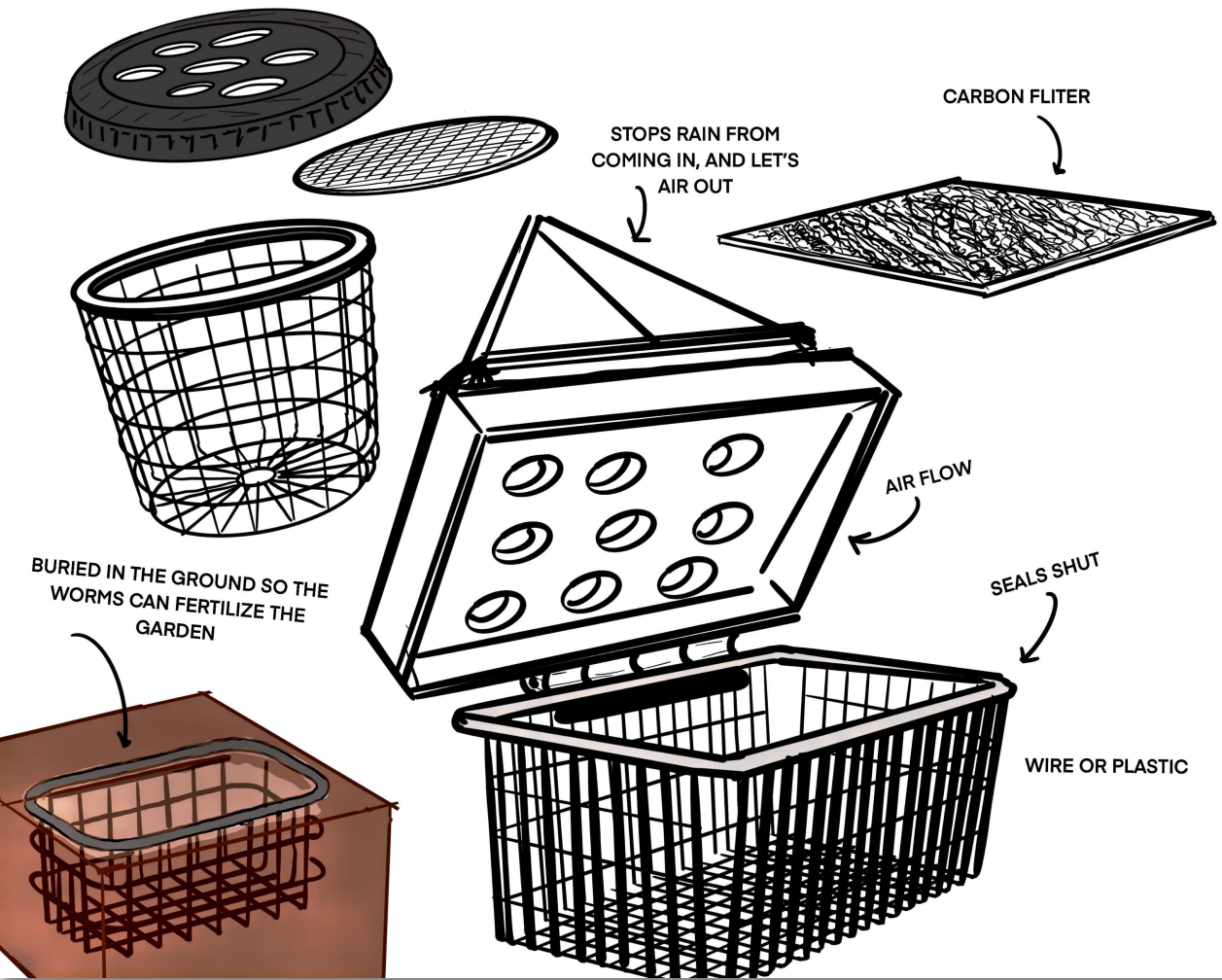


Multistage Composting.

All In One Composting, Shedding And, Spreading.

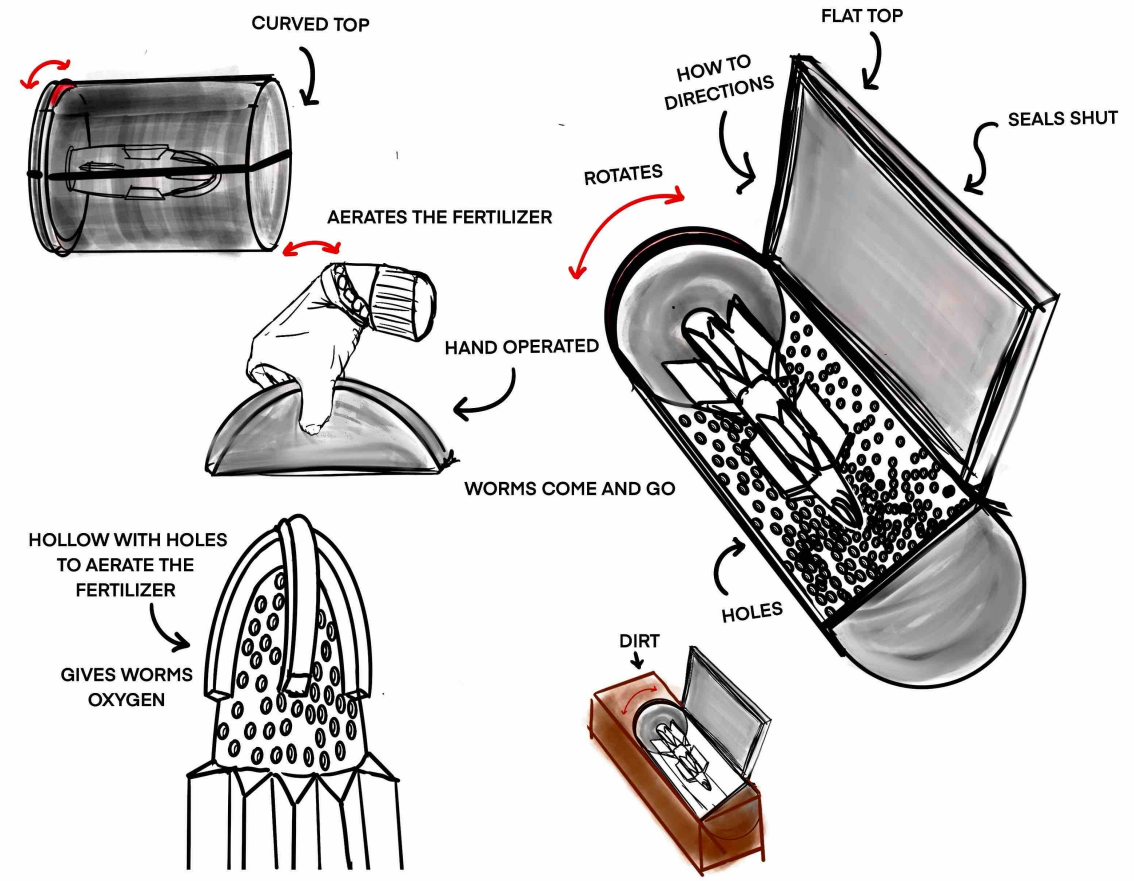


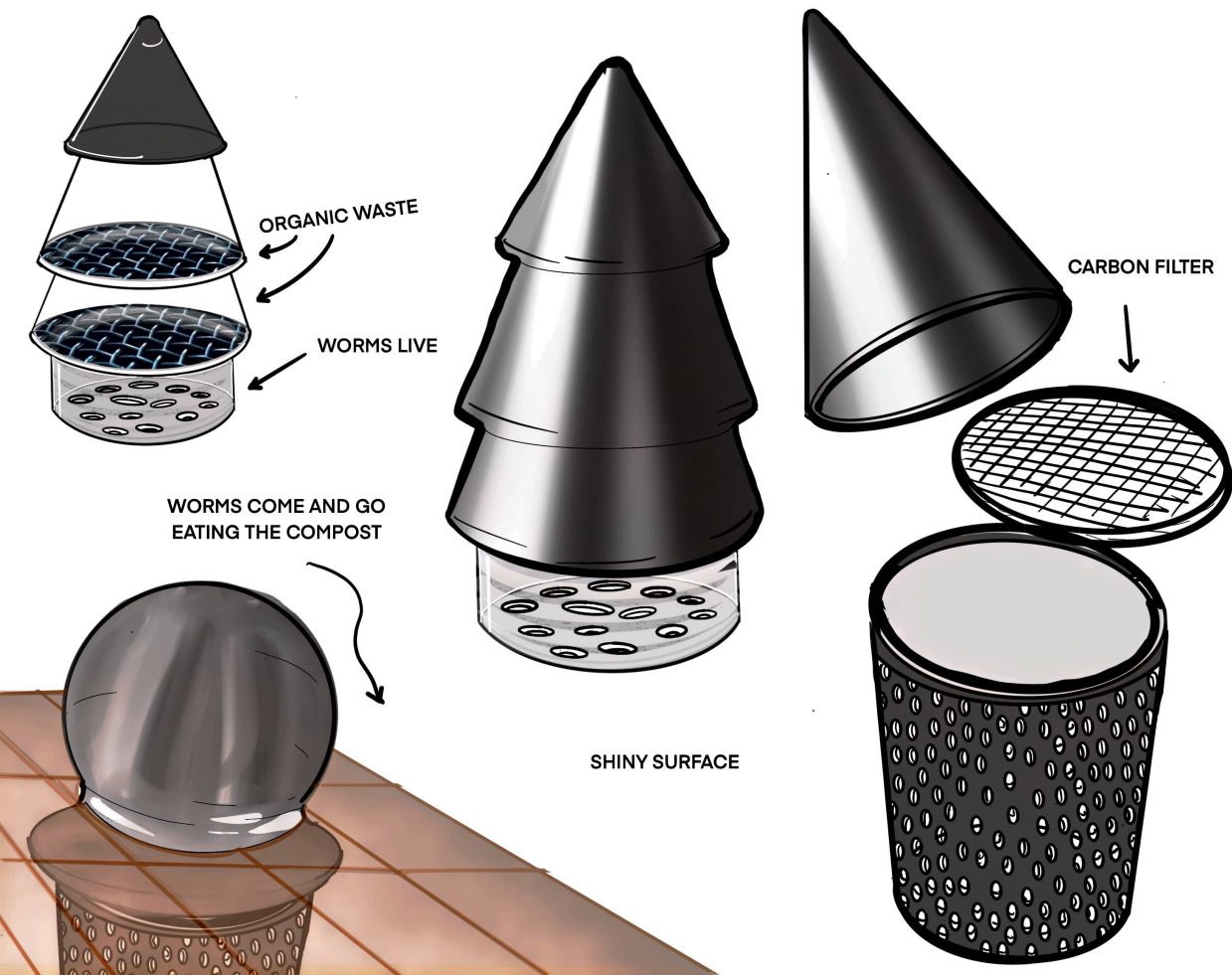
Smaller and having Multiple Of The Inground Composters.



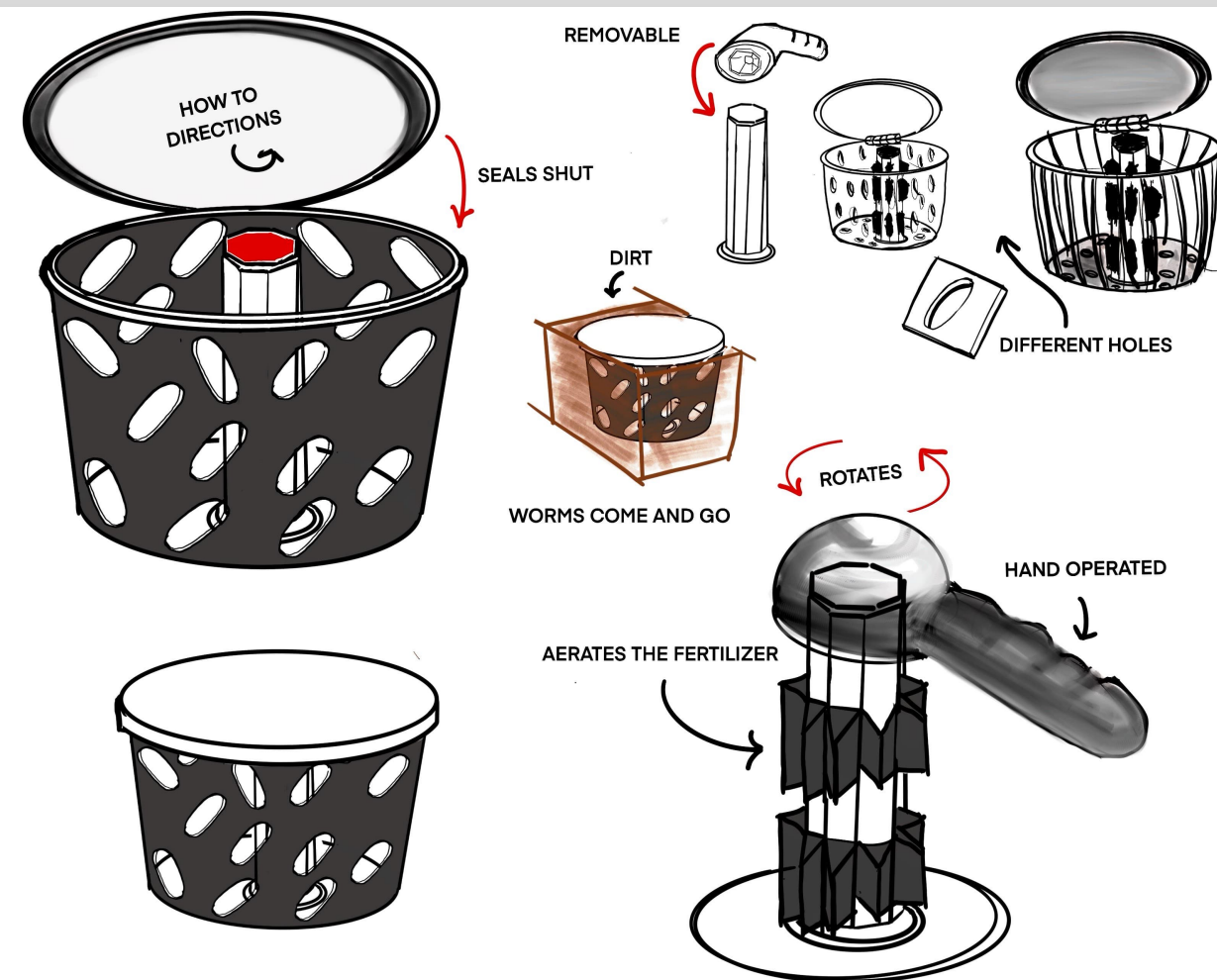
Different Form For The Inground Composters.

Inground Composter That Helps With The Turnover Processes.





Different Ways Of Doing The Turnover Processes.

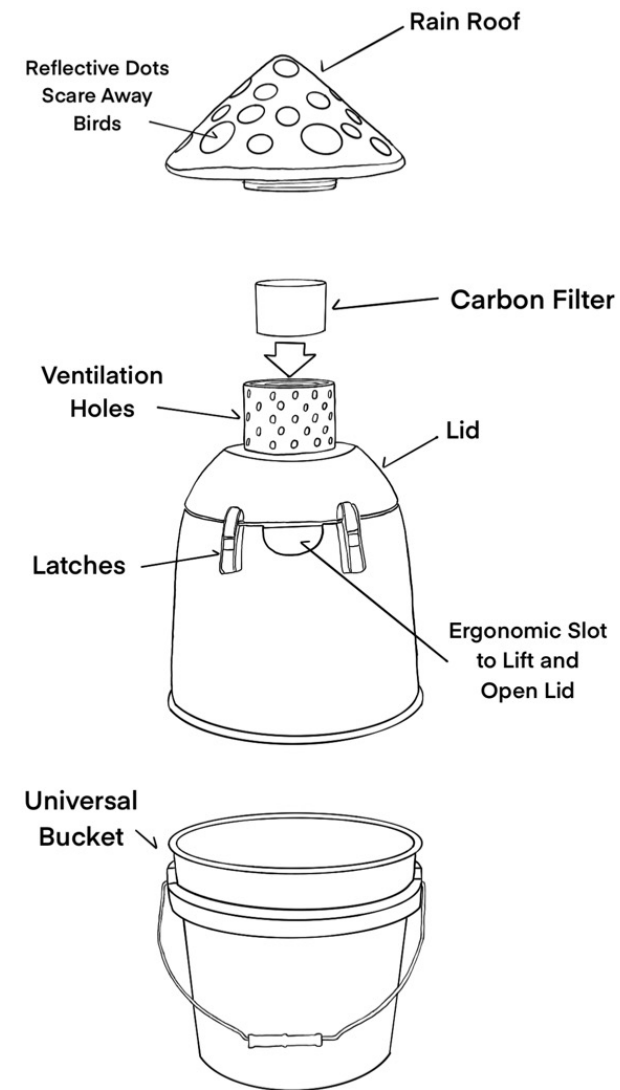
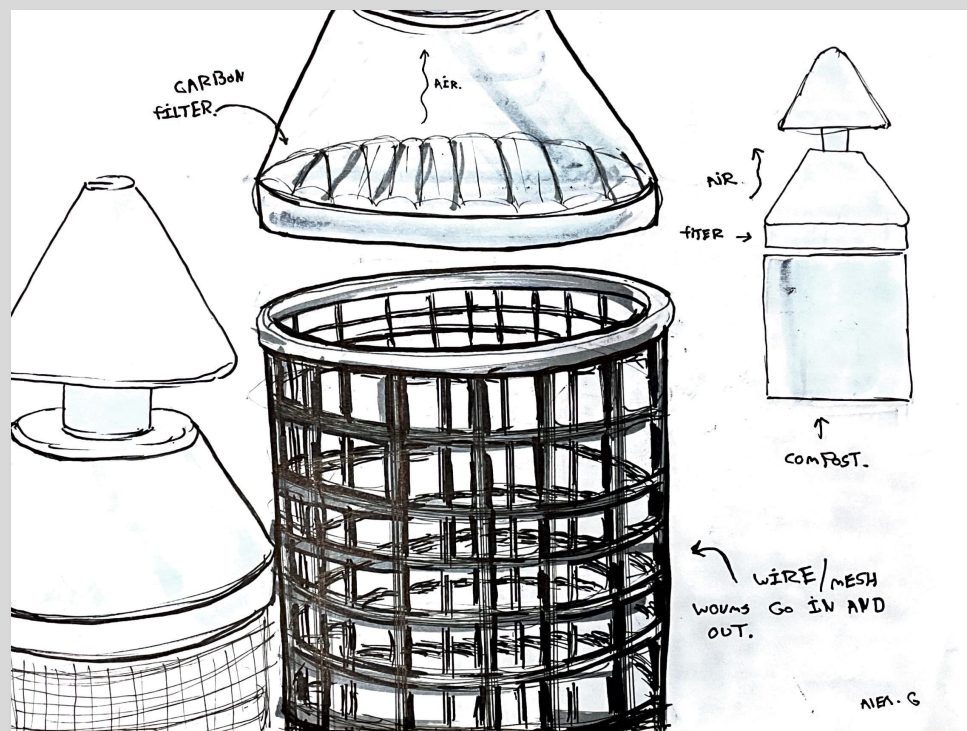


Inground Composter With A Top That Scares Away The Birds By Being Shiny.



Final Concept

The final concept revolves around an innovative air filter system designed for composting, compatible with standard 5-gallon buckets. This versatile product supports various composting methods, offering flexibility to users based on their preferences and needs.



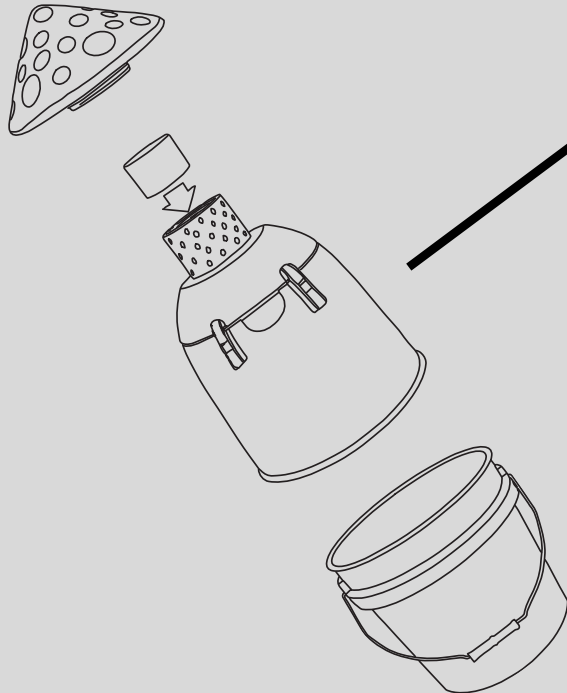
○ Prototypes





Fabricating The Final Product

Our group has opted for a creative approach in which we source found objects with similar forms. These objects will serve as the base, and we will utilize car body filler to alter their shapes, ultimately creating the illusion of a single piece of injection molded plastic.



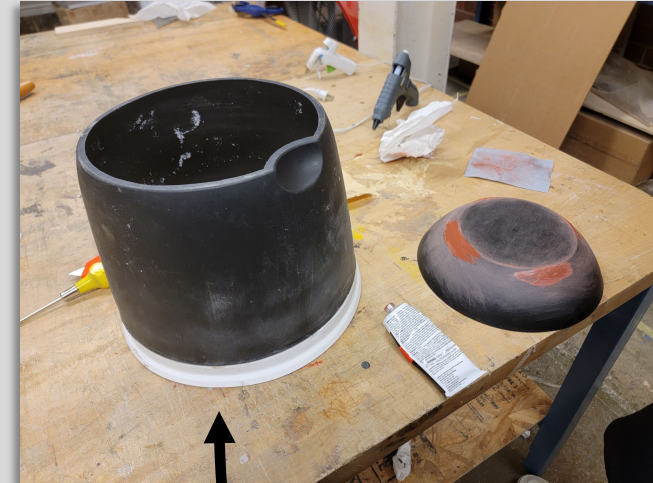


First Stage

First, we prep The Planter Pot to be glued onto a bucket lid.



We used the scrap bottom piece to make a lid.



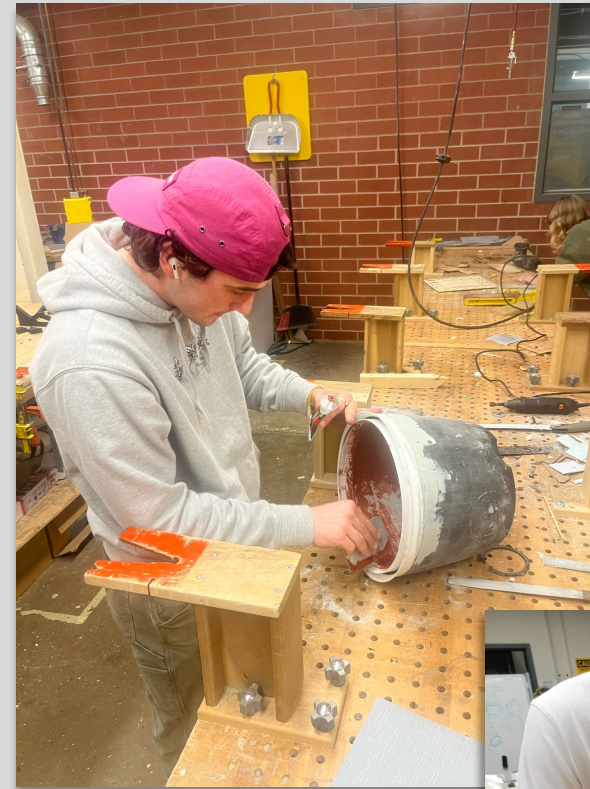
Glued onto a bucket lid.





Second Stage

We used car Bondo for the seam to look seamless like one piece of plastic.



The next couple of days were spent sanding and finishing the Bondo job.





Third Stage

Next, we made the top cone shape out of blue foam for the top part.



After we Painted it black and added mirrored dots to the top for scaring away the birds.



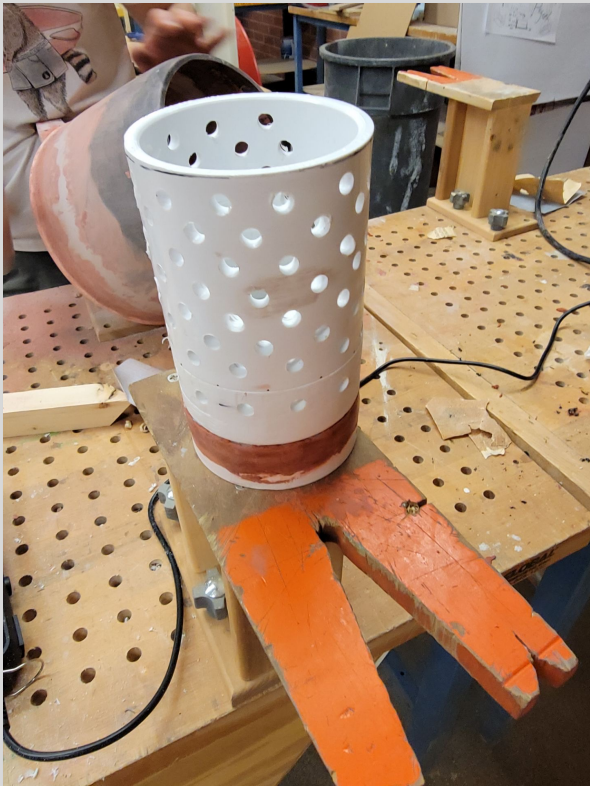
○ Fourth Stage

On this stage we added our hinges and front clamps.

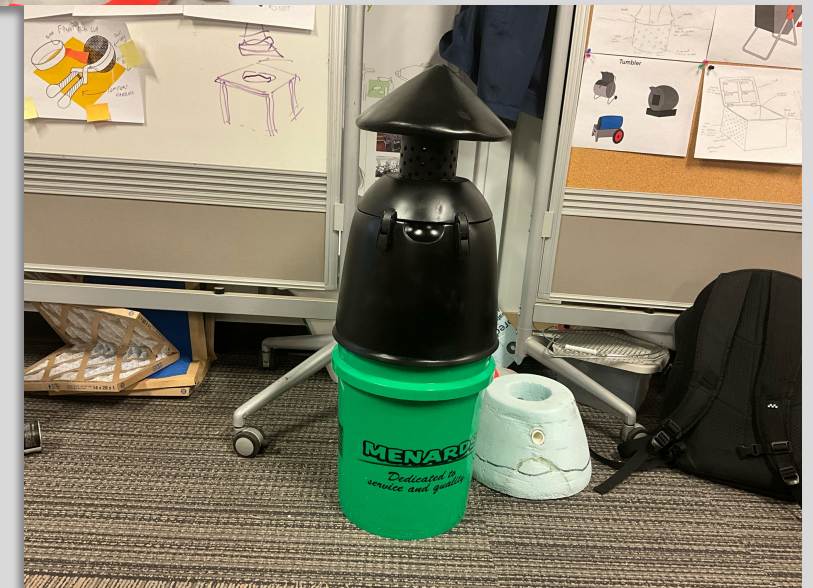


○ Final Stage

We used a threaded and holed PVC pipe for the middle ventilation system.



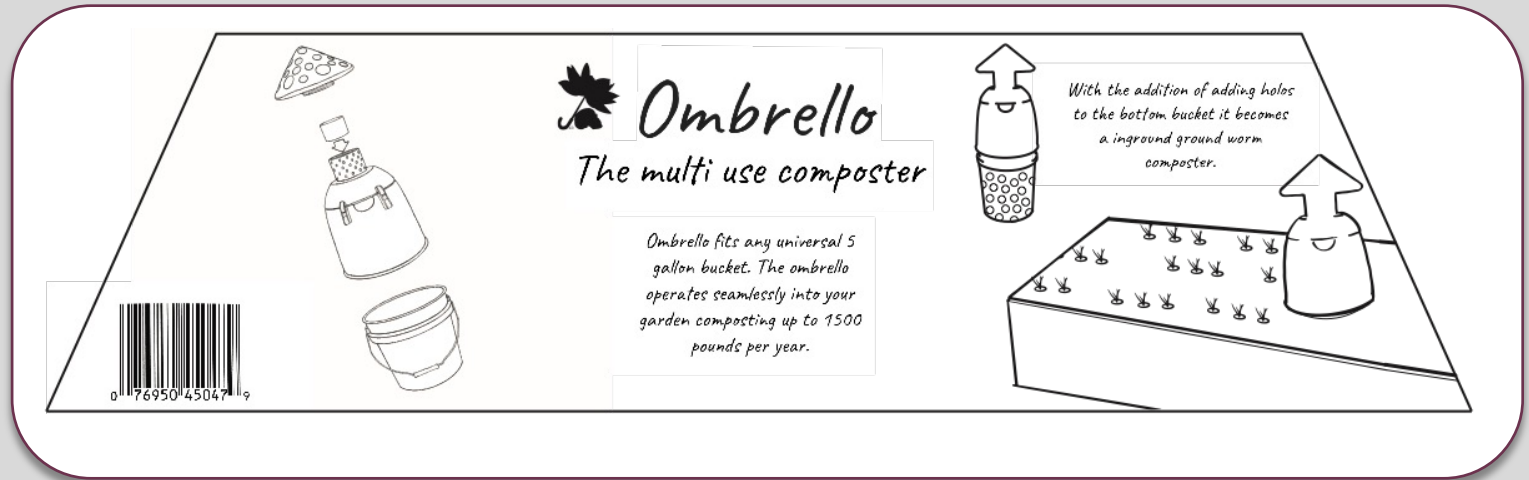
Lastly, we assembled it and painted it black.







○ Packaging



The packaging design for Ombrello is simplistic utilizing the product's bucket as the primary base. All additional components are neatly secured within the bucket with a lid. The addition of plastic wrapping further secures the overall packaging. Important information is displayed on a label affixed to the bucket, ensuring clarity for consumers.

This minimalist approach not only reduces waste but also lowers production costs, ultimately offering a more economical solution for both the manufacturer and the consumer.





FINAL DESIGN

Ombrello

By: Alex Gillingham And Isaac Kohls

