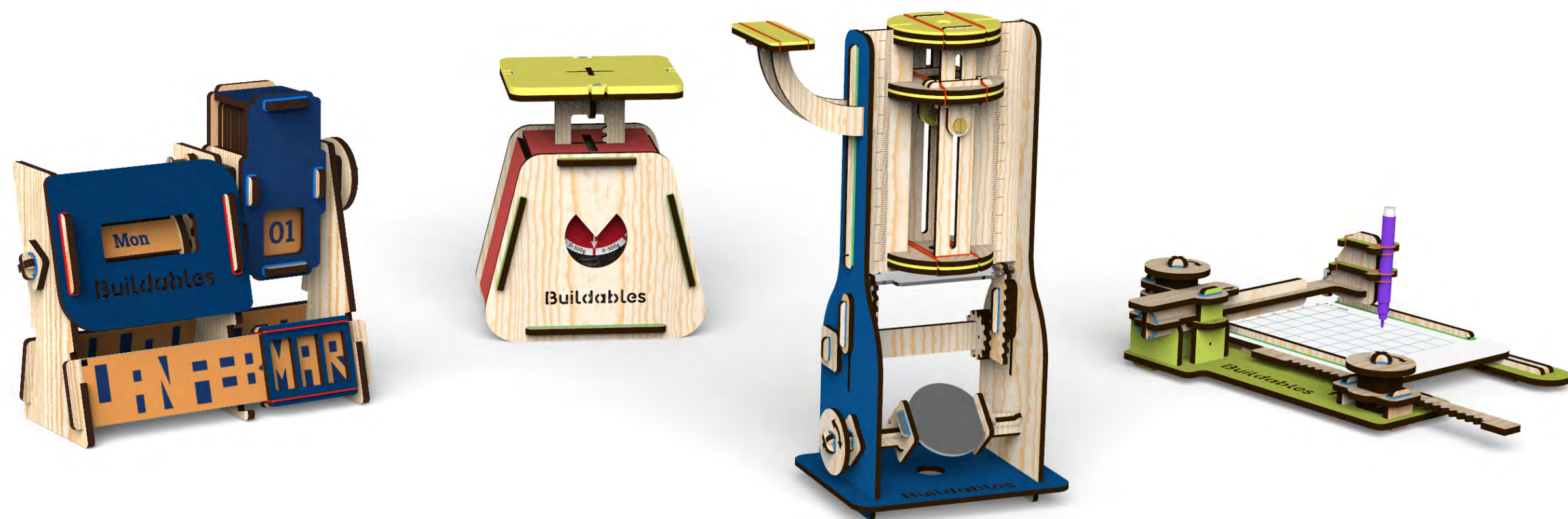


# // Portfolio

- / 1 **Buildables (2021)** – S.T.E.M. toys for Skillmatics
- / 2 **Games (2022)** – Boardgames
- / 3 **PickPocket (2021)** – Fabric upcycling venture
- / 4 **Big Mouth (2023)** – Playful Speculation at DSKD
- / 5 **Objects (2019)** – Handcrafted products for Objectry
- / 6 **GRO (2018)** – Graduation Project on Composting



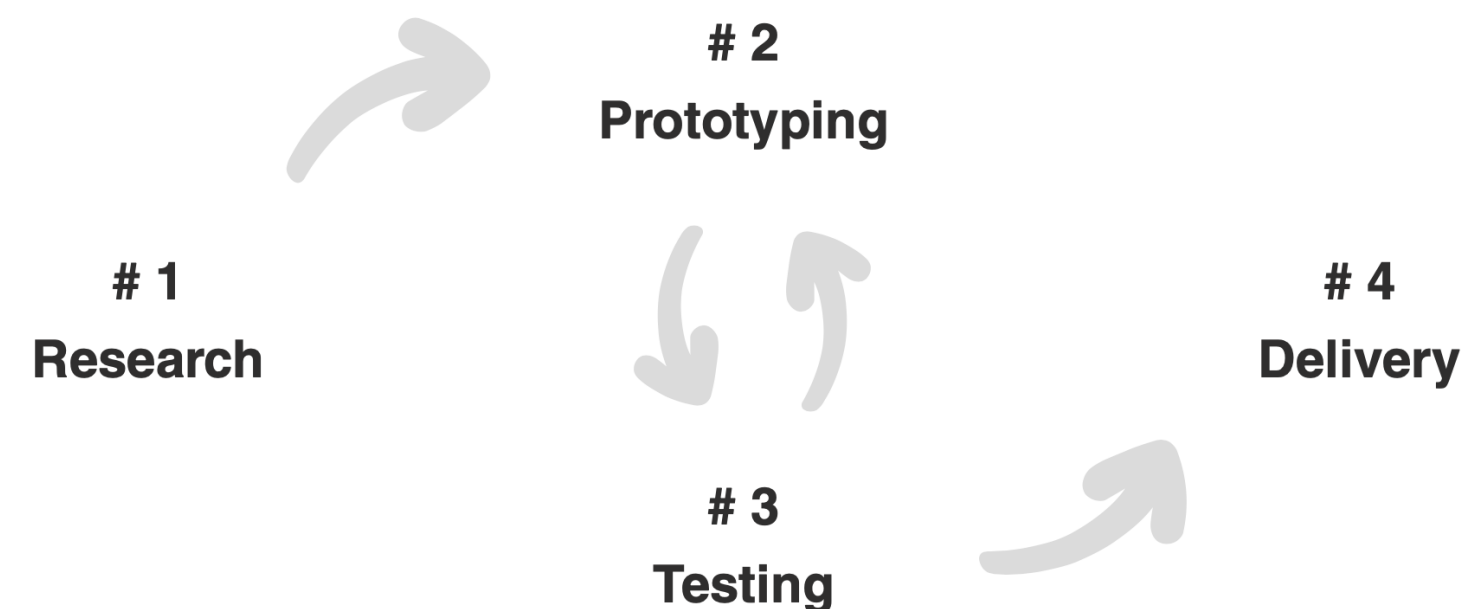
In my 3 years at Skillmatics, I have developed a whole new vertical for the Skillmatics portfolio - 'Buildables', and have contributed in countless other projects involving card games, board games and DIY activities.

Buildables is a range of new age S.T.E.M. products that teach children essential construction, analytical, and problem-solving skills through the joy of creating their own functioning machines which they can use everyday. The focus of the Buildables range lies in enabling kids to analyse instructions and construct simple machines. Moreover, they learn key science concepts with practical application and lots of exciting challenges and activities.

amazon

Skillmatics®

# Design Process



## #1 Research

Being a data driven company with a strong online presence, a good chunk of our research comes from the Amazon database. We started with the fact that 'STEM Toys' is a very highly rated search term on Amazon, both Indian and American. Taking this data as backbone to create a new platform level product to add to the Skillmatics portfolio, our team made various connections with parents and teachers to understand where and how to introduce STEM toys to children.

The most common insight we got from parents was that the existing STEM toys in the market have a very short shelf life. Children get bored easily due to the low engagement level of the products. This was the origin of 'Buildables'. We procured high quality engineered wood and pledged to design products that not only introduces key science concepts, but are highly engaging and fun to play with!

The product line was decided based on a thorough research both on the Amazon database and with school teachers. This gave our team a pool of concepts and ideas.

Toys	science kits for kids	Toys	kids science experiment kits
Toys	stem toys	Toys	stem toys for 8 year olds
Toys	science experiments for kids 6-8	Toys	stem
Toys	stem toys for 10 year olds	Toys	science kits for kids 9-12



## # 2 & # 3 Prototyping and Testing

Various iterations were made of the products, and tested in house for smoothness of mechanism and ease of assembly. Manuals and activity books were made for the same purpose. These were edited by both school teachers and child psychologists to ensure that the content was engaging and easily understandable for the target age group.

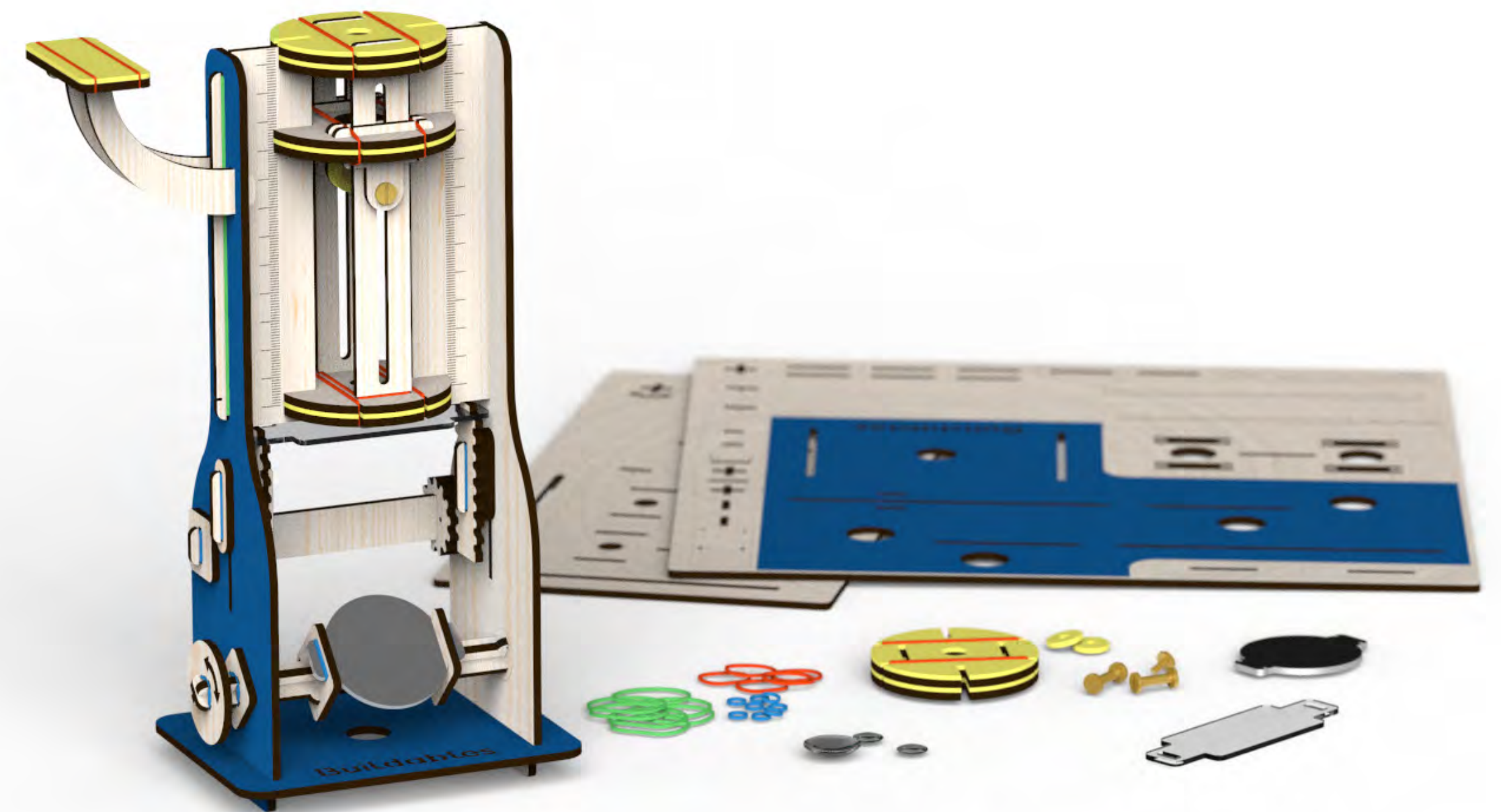
Extensive sessions were held with children aged 6-12, to observe their understanding and interaction with the products. The insights we gained were crucial for us to modify parts of our products and manuals for the best experience. In a span of 3 weeks, we had incorporated all the relevant changes, and started with our final stage of manufacturing.



## # 4 Delivery > # 1 Parts to build

These STEM toys are assembled using international quality MDF, cut to precision. The designs are intuitive, and easy to assemble. Individual parts of each product are designed to follow a family of standards, such that they can be fused together with the other products from the range and create something entirely new.

Other parts include plastic dowels, EVA foam, colorful rubber bands, and a lot more. These together make these machines completely non-adhesive and easily deconstructable.





## # 2



### # 3

FLUTE DIRECTION



OLD



NEW





/1.2

# Buildables MARVEL



amazon

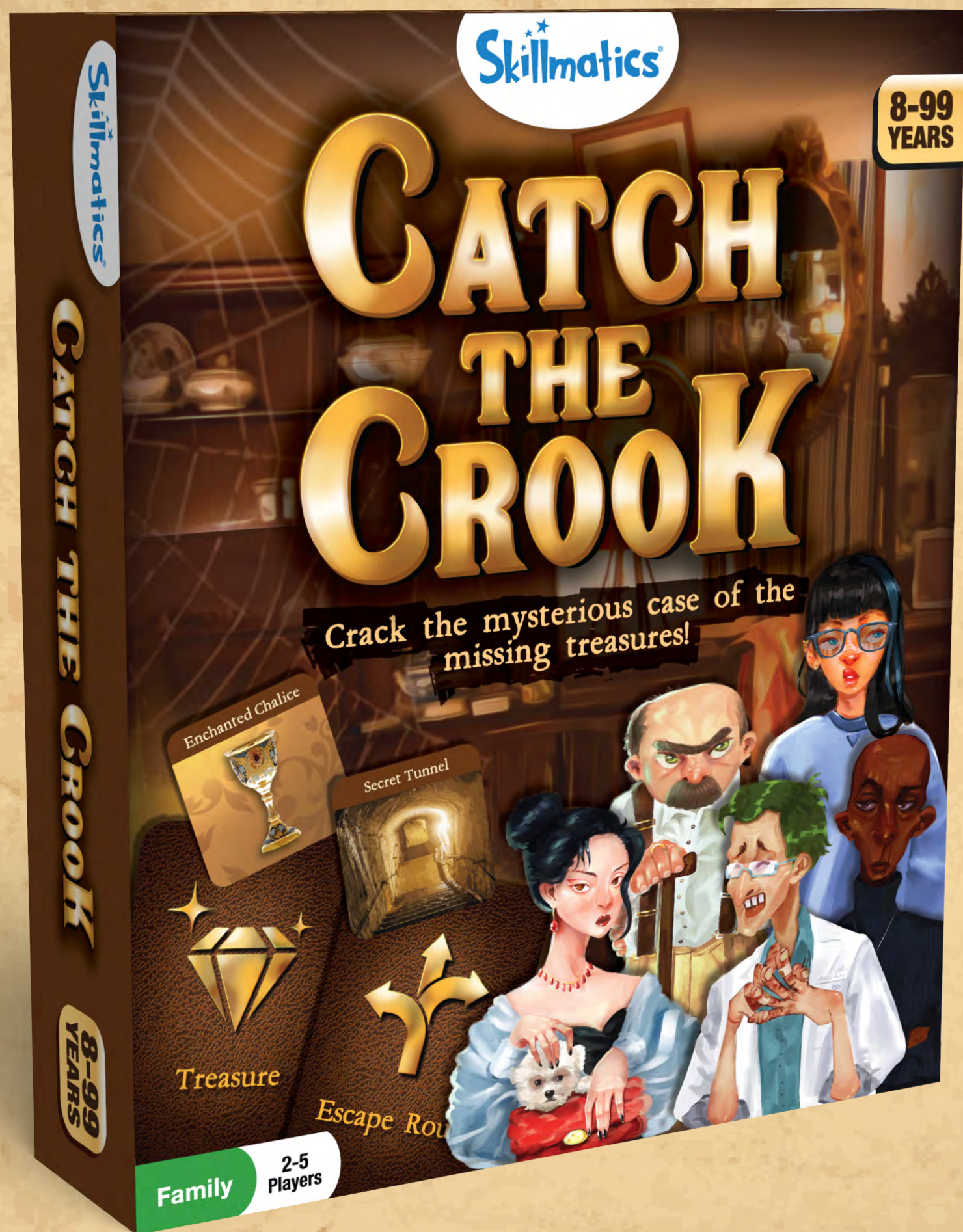
Skillmatics®

Our success with the Buildables range, and our collaboration with MARVEL gave the birth to this awesome project - Buildables MARVEL collectibles! These DIY superheroes are fully articulate with moving arms, legs, and head. The core mechanism (figurine structure) was designed by a colleague, on which each of us had to design the MARVEL character, Thor being my responsibility.



Being the product manager for the entire Buildables vertical, and having successfully launched 9 Buildables, I took responsibility of the product testing, instructional manual editing, product listing, and overall marketing collaterals. Working on such an important project and collaborating with the MARVEL India team was an illuminating experience. I gained invaluable insights into their meticulous approval processes, legal intricacies, and distinctive visual language rules. Navigating through their terms and conditions not only enhanced my project management skills, but also provided a profound understanding of how a colossal brand like MARVEL upholds its identity while venturing into partnerships.





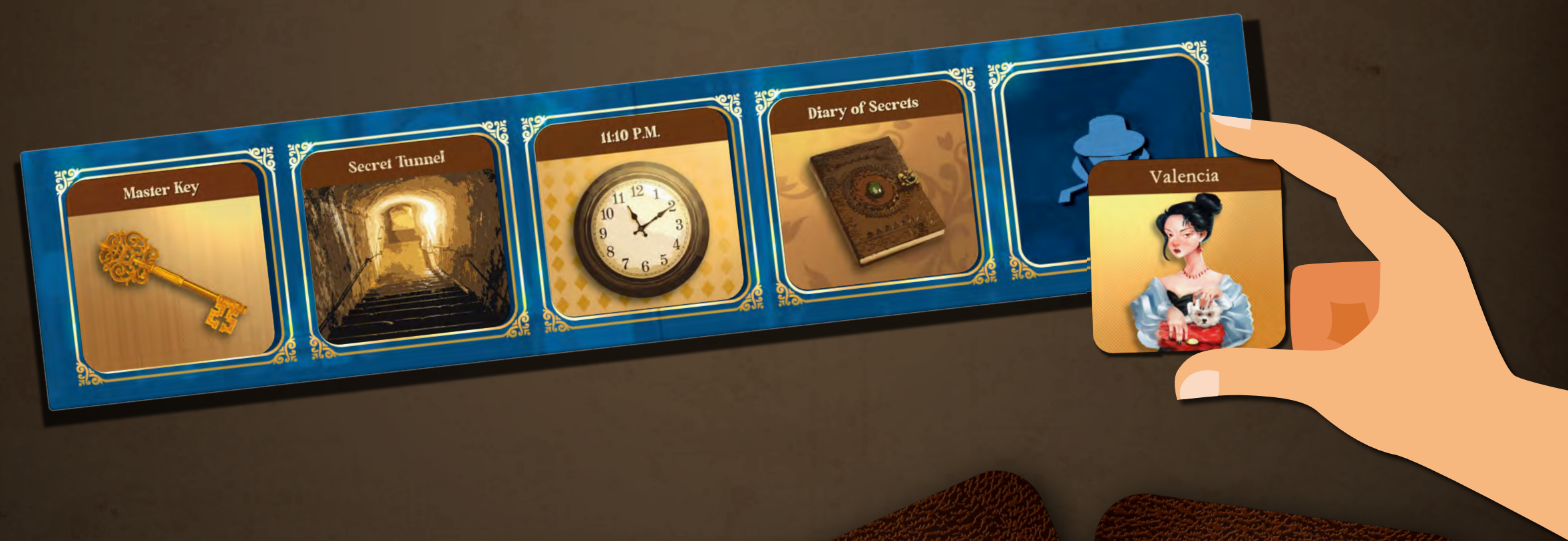
amazon

Skillmatics®

# CATCH THE CROOK

An ancient treasure trove is missing some invaluable objects! Use your deductive skills and play this nail-biting mystery game to crack the case and Catch the Crook! Be the expert card-flipper and become the first one to collect all the clues!

Which treasures are missing?  
Which tools did the crook use?  
What time did the theft take place?  
How did the crook escape?  
**WHO IS THE CROOK?**



Acumen	★★★★☆
Luck	★★★★★
Dexterity	★☆☆☆☆
Fiction	★★★★☆
Learning	★★★★☆



## How to Play (in short)

Separate the Tokens and stack them face down in the center. Give one Clue Board and the corresponding set of Cards (matched by color) to each player.

In each round, one player must roll the die. Then, each player must choose and place as many Cards face down as the number on the die (for eg. - 2). Once everyone places their Cards face down in front of their Board, all players flip their first (leftmost) Card together.

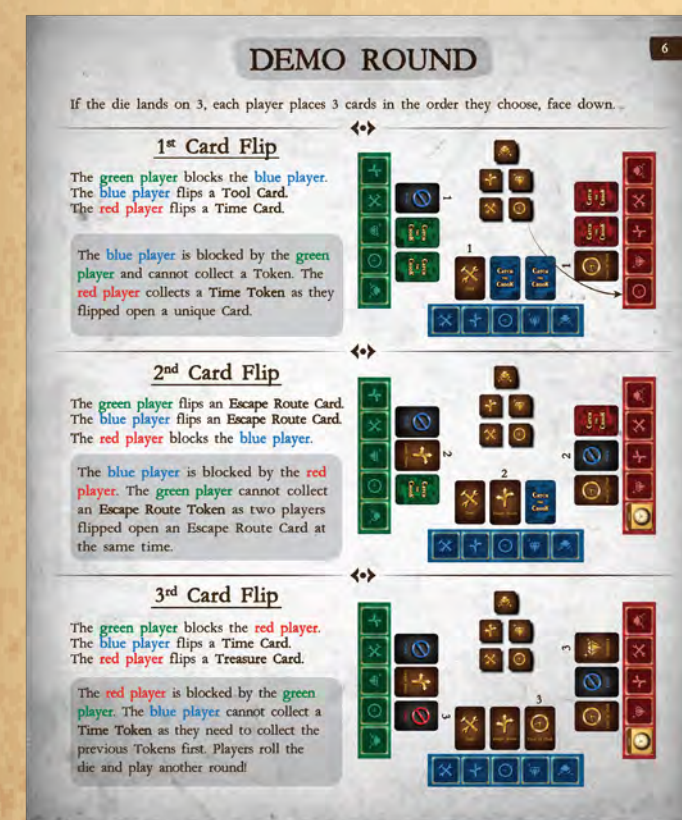


- 1.If you flip a unique Card and the corresponding Clue is the one you need first in your Board, you can collect the Clue Token.
- 2.If 2 players flip the same Card at the same time, neither player can collect the Clue Token.
- 3.If you flip a Block Card, the player you have blocked cannot collect their Clue Token.

After all the face down Cards have been revealed in the same order, all players must take back those cards and repeat the process to get all clues and Catch the Crook!

## Design Decisions

Being a fictional mystery game, every collateral was purposefully designed preserve the illusion. Elements such as fonts, colors, textures, artworks, and even the choice of words underwent meticulous discussion and design. Additionally, all content was proof-checked to ensure its appropriateness for a kid-friendly experience.



A considerable amount of time was devoted into testing the Rule Book and it's efficacy in explaining the game mechanics and its scenarios. As a solution, we included a demo round at the end of the Rule Book, which proved instrumental in illustrating the game's progression.



In the game's inception, every clue on the Clue Board was intentionally positioned so the players require them at different stages of the game. Although the game functioned smoothly, one pivotal detail was altered: all players were required to apprehend the crook at the final stage. This helped intensifying the endgame and justifying the name "Catch The Crook."

## My Role

As this was my first game development endeavor, I dedicated most of my time to refining the game mechanics and eliminating any potential loopholes. While my team was responsible for the remarkable aesthetics and illustrations, I collaborated closely with the content team on the Rule Book, undergoing more than 50 rounds of editing before reaching a final version.

In my role as a product manager, I assumed the added responsibility of curating the final printable files, meticulously proof-checking all collaterals, overseeing product packaging, and managing cost control. We achieved to locally produce and package each set in premium quality for under \$2 (13 kr), enabling us to launch the product at an impressively competitive price point.

## Amazon Rating 4.4



Cass

★★★★★ Quick setup and play

Reviewed in the United Kingdom on 27 December 2022

This was a fun game for the kids, perfect for over Christmas as it was quick and easy to play with minimal set up and didn't take hours. It involves some strategy but isn't overly narrated and with a big back story so perfect for older children.



Robin

★★★★★ Fun for all to play

Reviewed in the United States on 10 March 2023

Verified Purchase

I was looking for a game the entire family could play from 6 years old to 60. This was quick to learn, fun to play, and a strategy is definitely needed when playing. Recommend for family game night.



Lisa M.

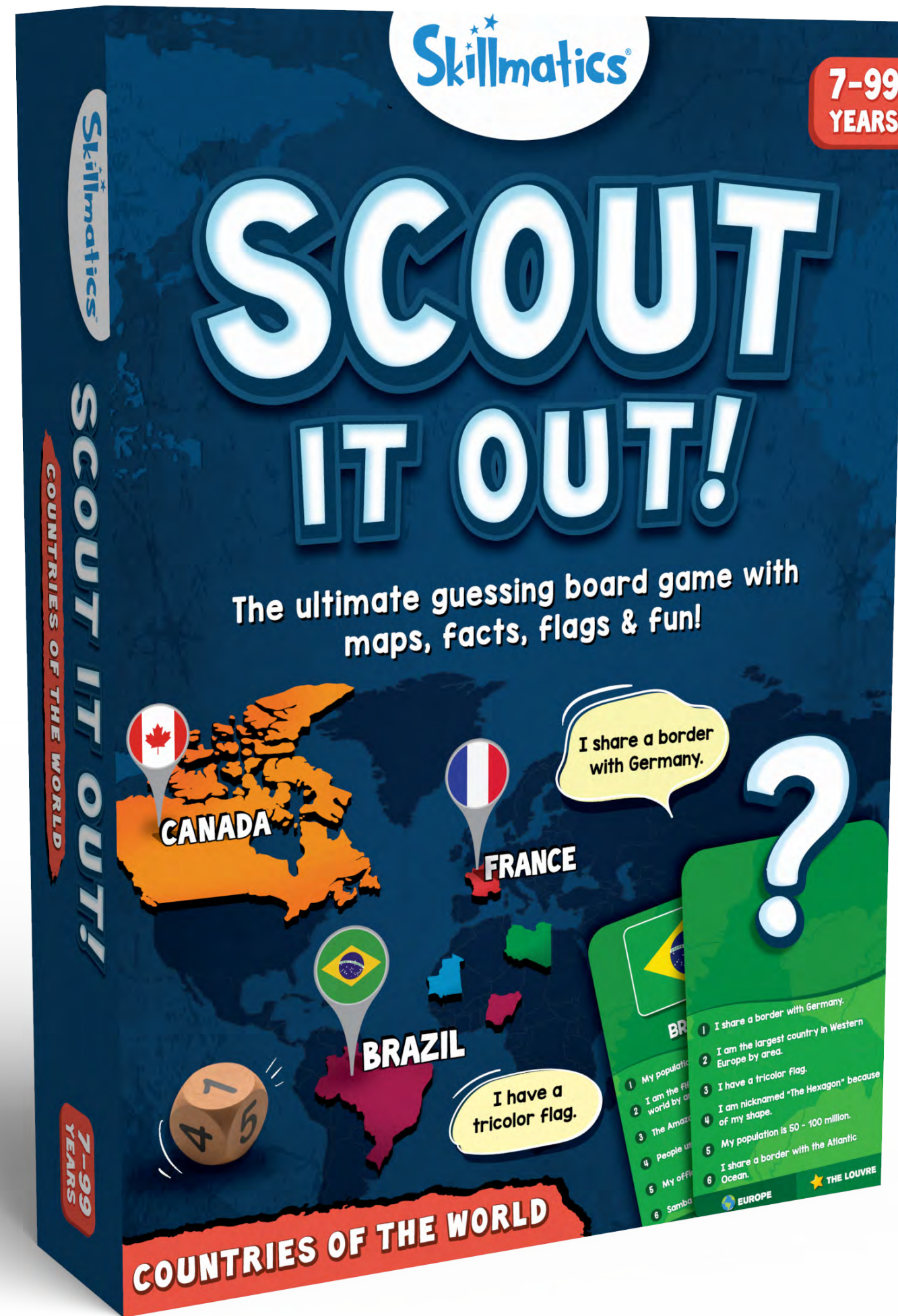
★★★★★ Fun

Reviewed in the United States on 6 June 2023

Verified Purchase

We love this game. Although it's not like the clue games of mystery solving, it's fun for a variety of ages. There is a good amount of strategy and luck involved so younger players have a fair chance of winning against older players.





amazon

Skillmatics®

# SCOUT IT OUT!

Get ready to play this ultimate geographical guessing game packed with maps, facts, flags and fun! In this game of rotating clues, you must be the first player to guess the correct country to win the Country Cards. Think hard, pay very close attention to what others say, and make smart guesses. The first player to collect 5 Country Cards wins the game!



Acumen  
Luck  
Dexterity  
Fiction  
Learning





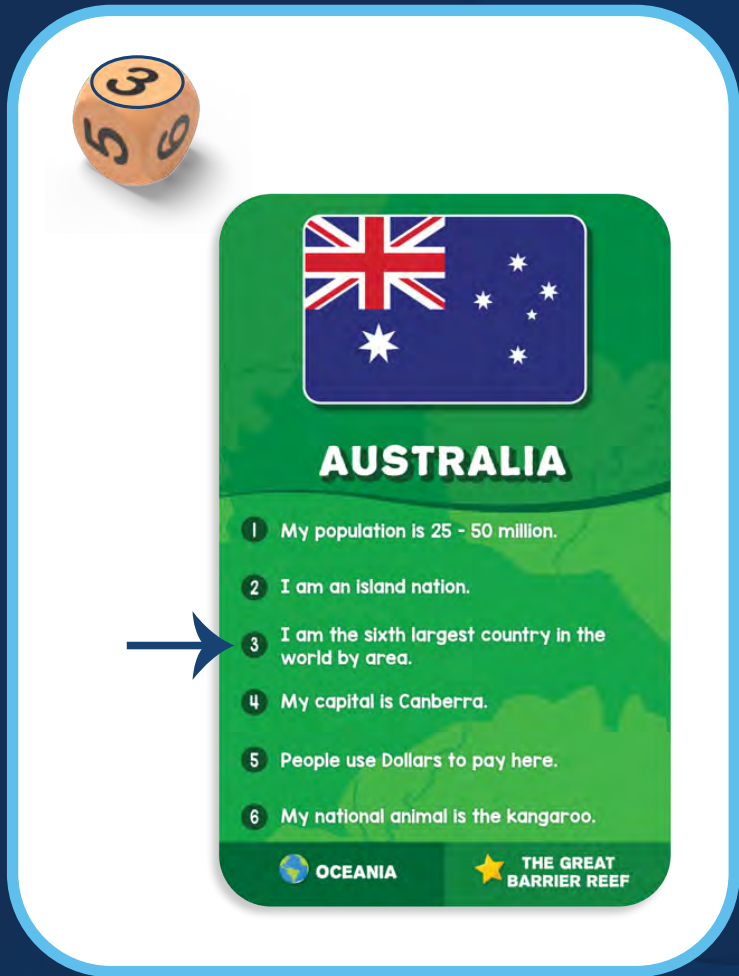
# How to Play (in short)

Place the Maps in the center. Shuffle and place all the country cards face down in a pile.



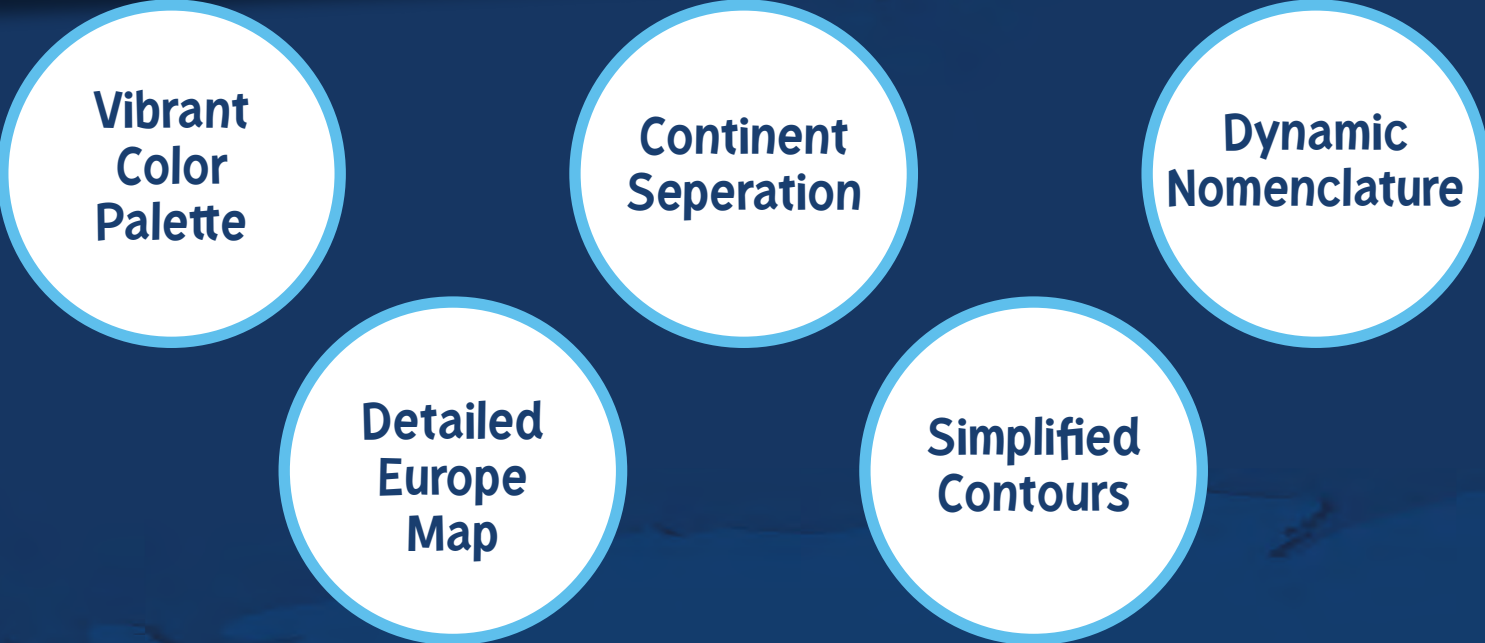
Any player may begin by picking the topmost Card. The player on their left rolls the die. Then, the player holding the card must read out the clue corresponding to the number on the die (for eg. three).

The player who rolled the die can now guess the country using the clue and referring to the map. If the guess is correct, they win the card and a bonus token. If the guess is incorrect, the next player rolls the die and gets another clue. This continues until someone has correctly identified the country. First player to collect five Country Cards wins!



# Design Decisions

The Game Cards were thoughtfully designed to incorporate nine separate clues. These include their flag, capital, geographical location, and general country trivia. While some clues make it easy to guess, others have multiple possible answers. This adds a sense of anticipation to the randomness of the die. Clue tokens were introduced to further help the players and give them a sense of agency.



# My Role

Working in a team of two, my colleague and I efficiently shared tasks and frequently indulged in creative discussions that informed our design decisions. After numerous prototypes and testing, we finalised our game mechanics, World Map and Country Card layout, and other visual details. Being a PM, I again had an added responsibility of curating the final printable files, proof-checking all the collaterals, product packaging, and cost control of the product. We successfully managed to locally produce and package each set in premium quality in under \$4 (25 kr).

Scout It Out was very well received in the Indian as well as the international market. Its success even led Skillmatics to create another SKU - 'Scout It Out - States of America' exclusively for Amazon US.

# Amazon Rating 4.6

Kirsty  
★★★★★ Great fun and very educational  
Reviewed in the United Kingdom on 21 November 2022  
Fantastic game, the whole family enjoyed this especially my geography obsessed boy! Really fun for people who is interesting in the world and maps particularly testing their geographical knowledge. It also can spark discussions on where to go on next holiday! Win win!

Geneva Thomas  
★★★★★ Great for homeschool!  
Reviewed in the United States on 5 April 2023  
This game is great for adding to a homeschool curriculum! My kids ages 8-14 and I really enjoyed playing this game and I learned some things as well! It is easy to set up and is very entertaining. We love it!

Bradley Nelson  
★★★★★ Good geography game  
Reviewed in the United States on 1 June 2023  
This is a good geography game for kids 8-10. The game mechanisms are pretty simple and maybe not that exciting, but a good way to do trivia, or just guessing in an effort to learn. Could be used in classrooms as well.





INDIAN TOYCATHON  
2021

# फार्म-वीर

Farm-veer (Brave Farmers)

A simple and fun cooperative board game that lets children (4 years and above) experience the benefits and joy of sharing as they step into the shoes of farmers and work together to save their crops from natural calamities! The little Farm-Veers will learn not only about the elements that help in building a farm, but also those that pose a threat to it. Get ready to see the young heroes fight against adversities like storms and floods to keep their farm safe.



Acumen	★★★★☆
Luck	★☆☆☆☆
Dexterity	★★☆☆☆
Fiction	★★★★★
Learning	★★★★★



## How to Play (in short)

Set up the board by placing all the crops in the center. Shuffle and keep the Farming cards on the side face down. Each player blindly picks up 5 resources from the bag.



Every player spins the spinner on their turn. If it lands on green, they pick a farming time card and try to create the combination shown on the card to move ahead. At this point, the player needs to ask other players for their resources. All players must share their resources with each other in order to reach the centre.

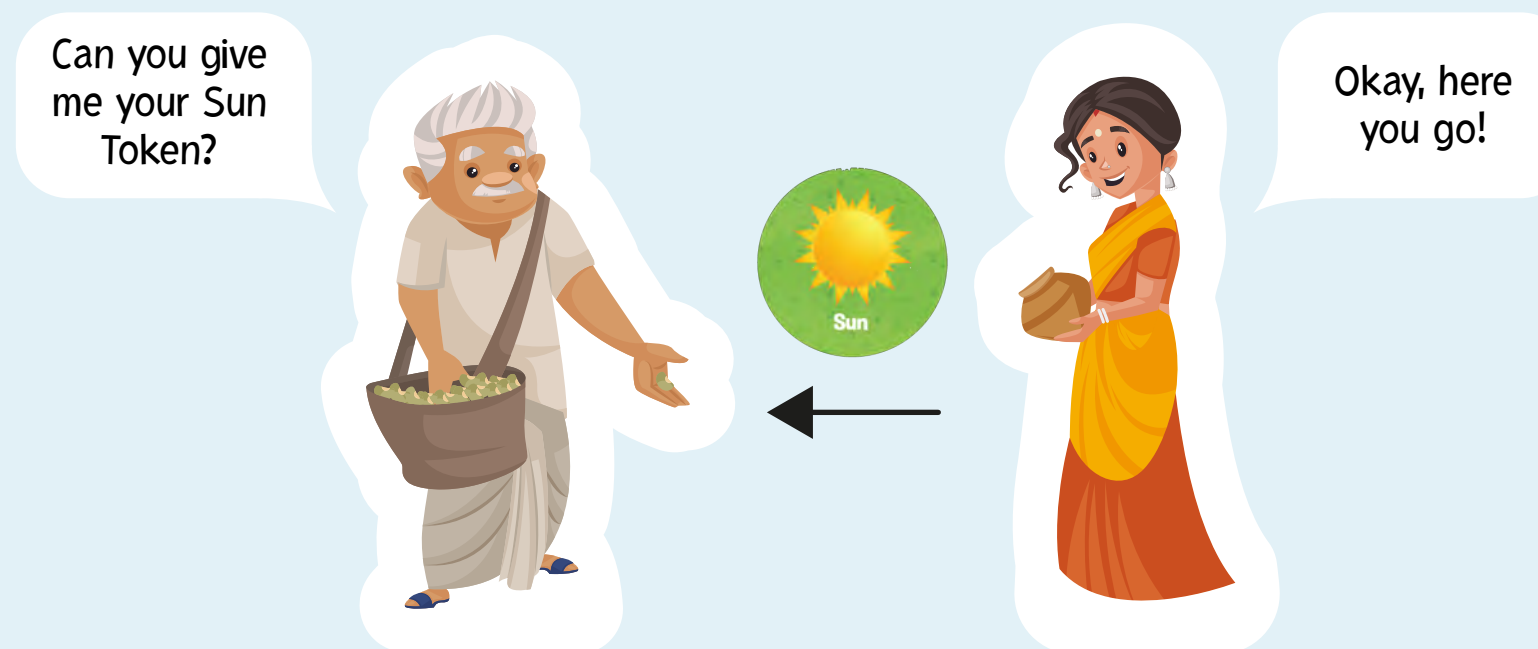
If the spinner lands on the Blue Weather Monsters, they have to remove one crop from their farm. All players need to reach the farm and put up their fences to save the crops before the the Weather Monsters destroy them all!



## Design Decisions

For preschoolers, their idea of 'self' is first connected with their material belongings and hence sharing is a challenging task for them. Moreover, they may take something for themselves without giving a thought about who it may belong to.

This game has been designed such that when the time comes, children must give away their personal tokens to their team mates for the greater good i.e. saving their crops. The game also requires children to ask for another player's objects that they may require to move forward in the game, encouraging permission taking behaviour.



Tactile feedback is very effective when it comes to communicating with children during their formative years. Also, 'material' sharing is central to the concept of this game, therefore the need for physical interactions is paramount.

The gameplay ensures that such interactions take place at the critical points in the game; namely the task of sharing, and the removal of crops when the Weather Monster strikes.

The theme was chosen as 'Farming' as agriculture is an important part of the Indian economy and the primary source of livelihood for most Indians. So it is high time this sector is introduced to impressionable young minds in ways which instil in them a sense of pride about the noble profession.

## My Role

Being the youngset and least experienced in a team of 4 designers, I was pleasantly surprised by how much impact I had in the decision making, and how valuable my comments proved to be. Upon my suggestion, the following brief was finalised:

**"Design a toy or game to promote the concept of sharing between children."**

While we all shared the work equally, I was involved more in structuring the game mechanics, designing and deciding the quantity of various components of the game, and to figure out the production capabilities and costing of the hypothesized product (\$2). Unfortunately, we could not test the physical prototype with any children due to COVID restrictions. I was also thrown in deep waters by being given the responsibility to pitch in front of a panel of indian industry leaders. For our joint effort, we were awarded as one of the certified winners of the Indian Toycathon 2021!





/ 3

# PICKPOCKET

Stemming from my college project POCKETRY, Pickpocket is my first entrepreneurial venture.

The idea back in 2016, was to create an activity to sensitize people towards the issue of fabric waste and show its vast potential. In 2021, my friend and I took this forward and turned it into a business model, where we upcycle pre-consumer fabric waste from factories and provide a platform where you can...

## *Design Your Own Shirts*



## Why?

Textile waste generation is an issue that urgently calls for stronger actions and rethinking manufacturing and disposal guidelines in the fashion industry. Globally 100 million tons of textile waste is generated annually, of which only 13% is recycled. Fast fashion brands produce hundreds of million of garments every year and put a small markup to earn their profits.

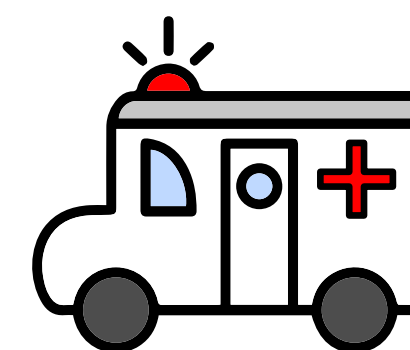
When you spend less money on clothing, you are also less likely to hold on to it during our next spring cleaning. This means that in an effort to keep up with the Kardashians, you are spending more money on clothing that will quickly go out of style and into the landfill.

Pickpocket helps rebuild that lost connection with your clothing. When you spend time choosing your favoured print and customizations, you are more likely to hold onto the shirt than you are to the discounted item you bought from a trending now list. You help us help you further an initiative that takes into account ethical practices, fair wages and proper utilisation of textile waste. Pick Less, Pick Responsible, PickPocket!

## Our mantra

### RESCUE

One man's waste is another man's treasure, especially textile waste. Cuttings, trimmings, sleeves, patches and scraps can all be rescued, all we have to do is get a little creative.



### REPURPOSE

Take a second look at the item you were about to toss out. It is always a good idea to repurpose it for another use. Afterall, 'jugaad' is the mother of all inventions right?



### REJUVINATE

Bring life back to your clothes! Repair them, add accents, customize patches, and sew a strong bond with your pre-owned items.



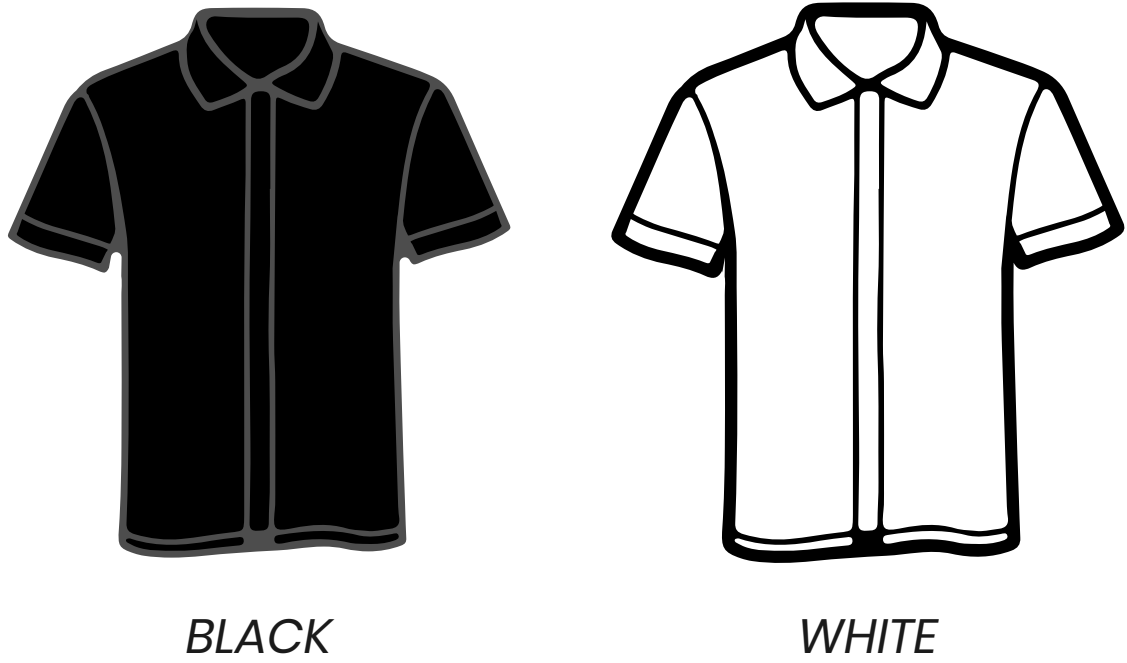


# How it works

To test such an initiative, we made an instagram/facebook page to communicate our idea. To design a shirt from scratch, one needs to follow 4 simple steps -

## # 1 Select the base color.

For initial testing, we kept only 2 options for the base color of the shirt.



## # 2 Select any print.

These are the upcycled fabric waste that we collected from factories. They consist of various high quality prints in fine cotton.

We have a total of 200+ unique prints in our catalogue!



## # 3 Choose your customizations

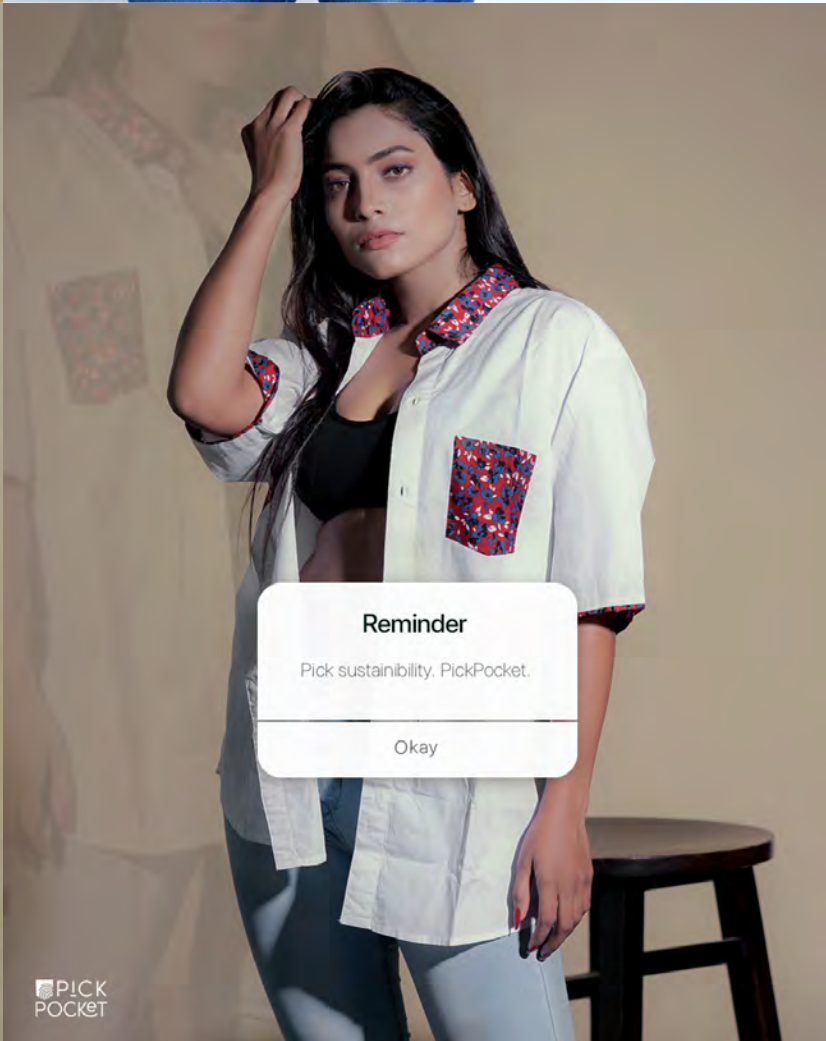
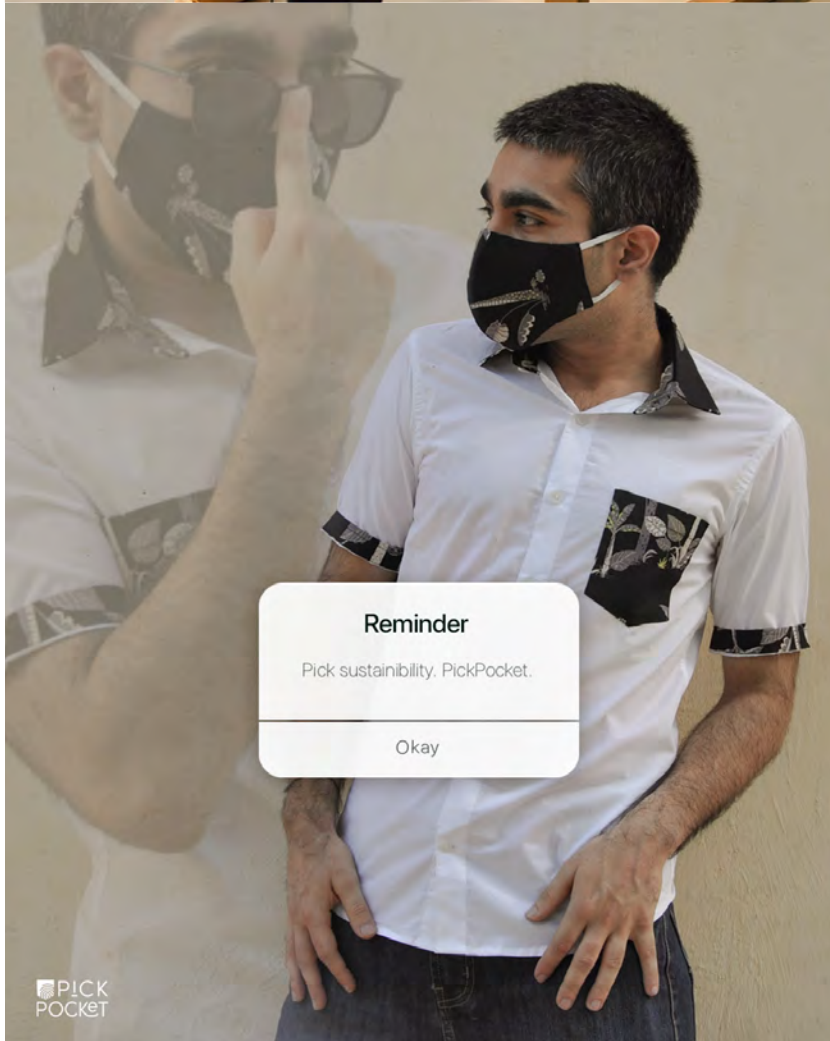
Repurposed prints can be patched onto 4 different sections as shown below. One can select any/all customizations of the print on their base shirt. This, along with the color and print selection, makes every shirt unique.

SLEEVE CUFF  
POCKET  
COLLAR  
INNER PLACKET

FULL SLEEVE VARIANT



HALF SLEEVE VARIANT





## # 4

### Place the order

We have provided a google form for people to place their orders on our Instagram/Facebook page. This streamlined the process for our backend as well. We tailored more than 80 shirts in the first 3 months, and have also provided shirts to a cafe in Goa which they use as staff uniform.



**Mezmiz Cafe**  
Goa, INDIA



## Learnings

This entrepreneurial journey has been a steep learning curve in areas of market evaluation, customer experience, and business management. To begin with, I learnt how crucial it is to question the product or brand and have definite answers before venturing out. By answering these questions, I got a clear understanding of what our brand stands for and how to narrate our story.

**WHAT**

am I selling

**WHO**

are my  
customers

**HOW**

well am I  
communicating  
the concept

**WHERE**

will my products  
be used

**WHY**

will people buy  
my product

The whole experience has been immensely helpful in my growth as a designer, and as a budding entrepreneur. We have faced many challenges as we walked the path of developing this business and have worked relentlessly to solve them. This has not been easy as both my partner and I had our respective full time jobs, and managed to make time for PickPocket only after work hours and during weekends. We have developed a website which aims to smoothen the customer experience, while also giving them a glimpse of the shirt they are designing.

The response we received from our launch on Instagram was overwhelming. People loved our concept and supported us in various ways. Though profitability drives business, it was not our primary goal for the year; it was to create an ethical brand that encourages indigenous products and eco-friendly practices. If our efforts have resulted in making even a few people think twice before buying or discarding any apparel, I think we have taken a step towards success.

In 2022, we decided to put our venture on hold as both of us went on to pursue higher education.

Visit our website - '[www.pickpocket.clothing](http://www.pickpocket.clothing)' to know more, and do visit the '**shop**' page to customize your own shirt and watch it come to life!

 **PICK  
POCKET**



# BIG MOUTH



## #1 Year 2030

Introducing Big Mouth – the educational tool that speaks volumes while keeping it clean! The revolutionary AI-powered mask filters your ugly words into a polite and non-offensive version, ensuring harmony in every conversation. Whether you're at school, work, or social gatherings, our mask acts as your personal language companion. It's like having a verbal guardian angel by your side!

But Big Mouth isn't just about filtering language; it's about fostering a culture of empathy and understanding by promoting mindful and inclusive communication.

Join the movement of thoughtful speech with Big Mouth. Together, let's redefine the way we communicate, one word at a time. Step into a world where politeness and empathy prevail – because words matter, and kindness is contagious.

### What Big Mouth can do for you -

Don't be a little bitch!



Stop imitating a small female dog.

Holy shit.



Spiritual feaces.

I don't give a damn what you think.



I have no interest in your opinion.

You suck.



You are ingesting fluids by creating a vacuum in your oral cavity.

You're such a pussy.



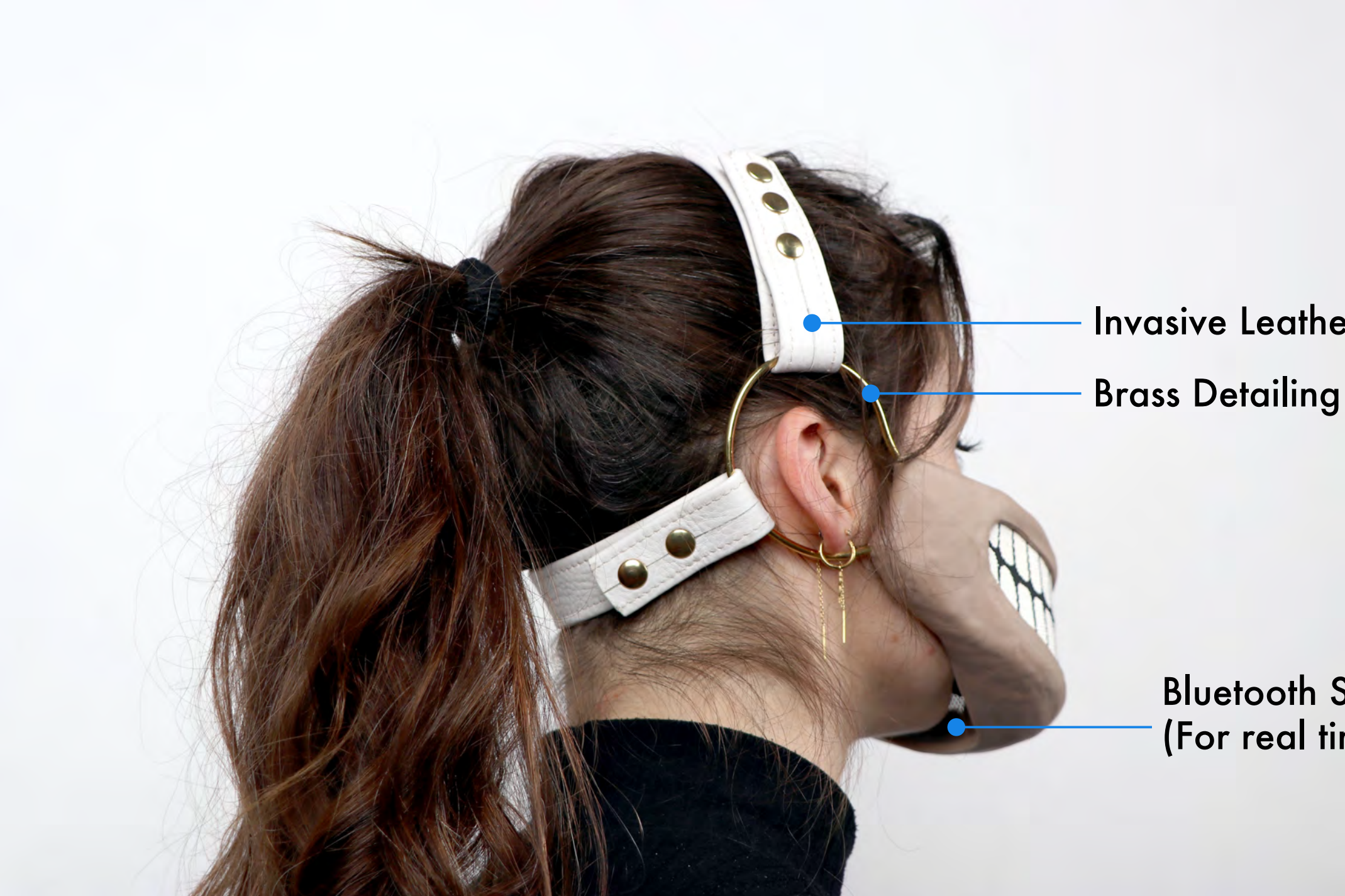
You're imitating a cat.

Fuck off!



Please reproduce far away.





Invasive Leather Strap

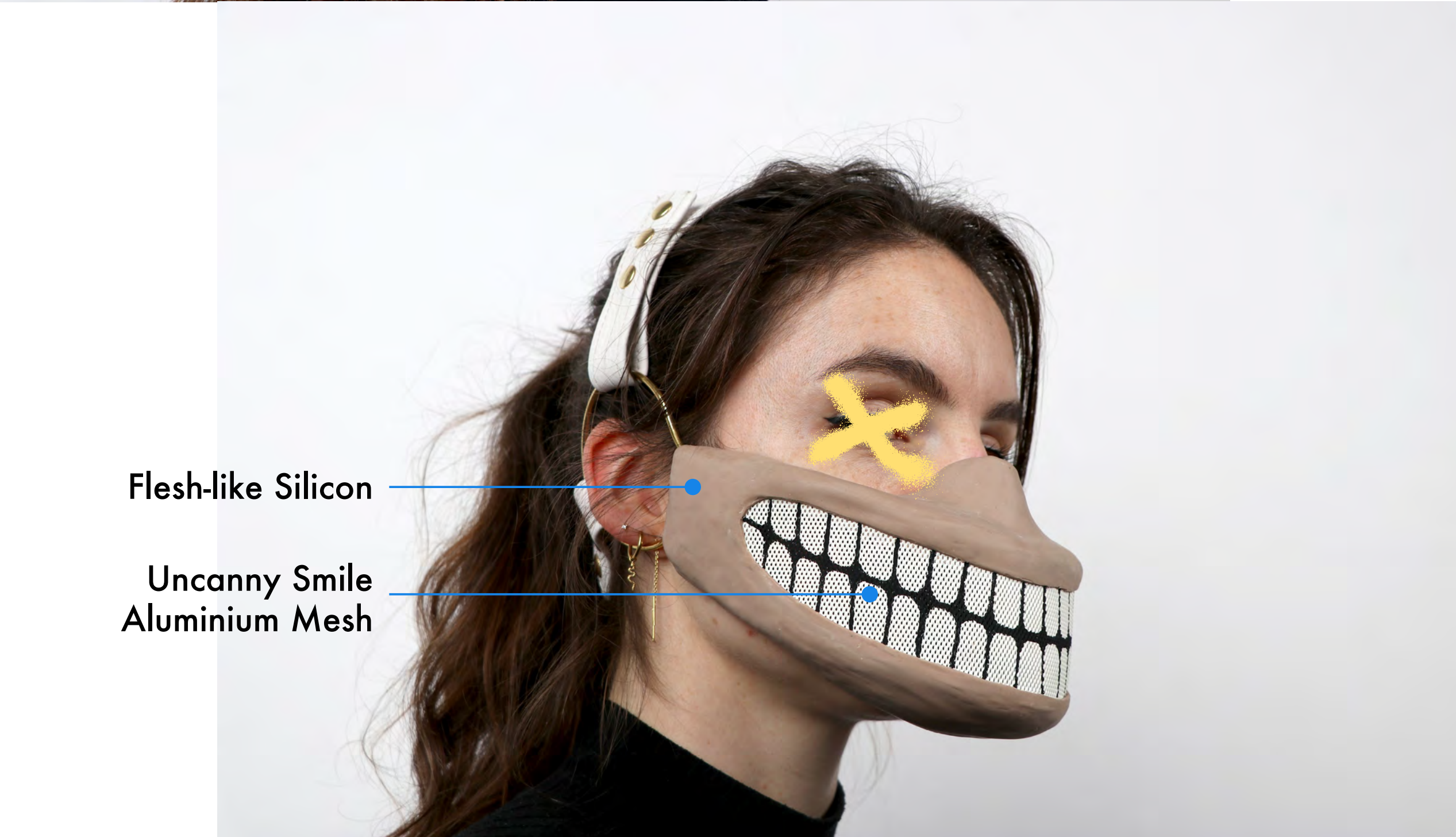
Brass Detailing

Bluetooth Speaker  
(For real time translations)

## #2 Design Details

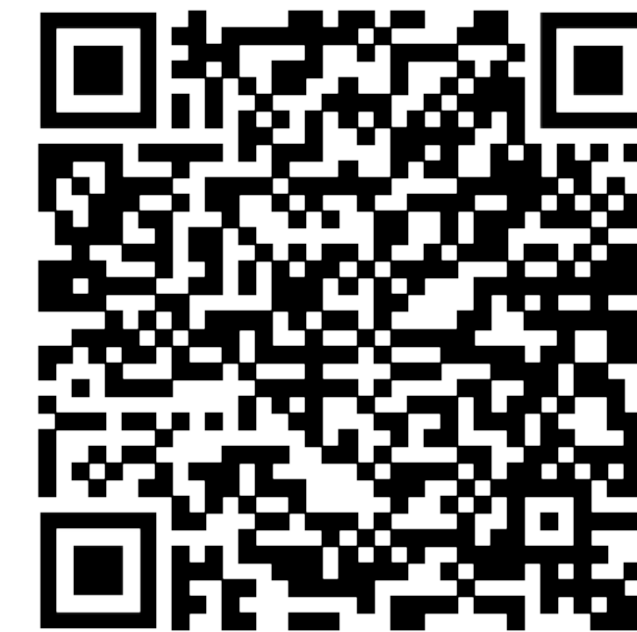
The first feature we wanted to incorporate was an uncanny smile. This we proposed to be a form of social performance, to always portray a happy outlook. The material used for the mask is silicon, to make the mask more flesh-like, so it acts as a natural extension to your body. For the straps we chose to go with leather, to refer to the invasiveness of BDSM. But to make it less harsh, we went with subtle colors, pairing them up with brass details.

To make the concept more believable, we came up with a company and website. **Sassy Sapiens** is a (fictional) company that makes educational tools for the new education 4.0 taxonomy. Visit our mobile website to know more about our vision and products. Get your Big Mouth on discount only today!

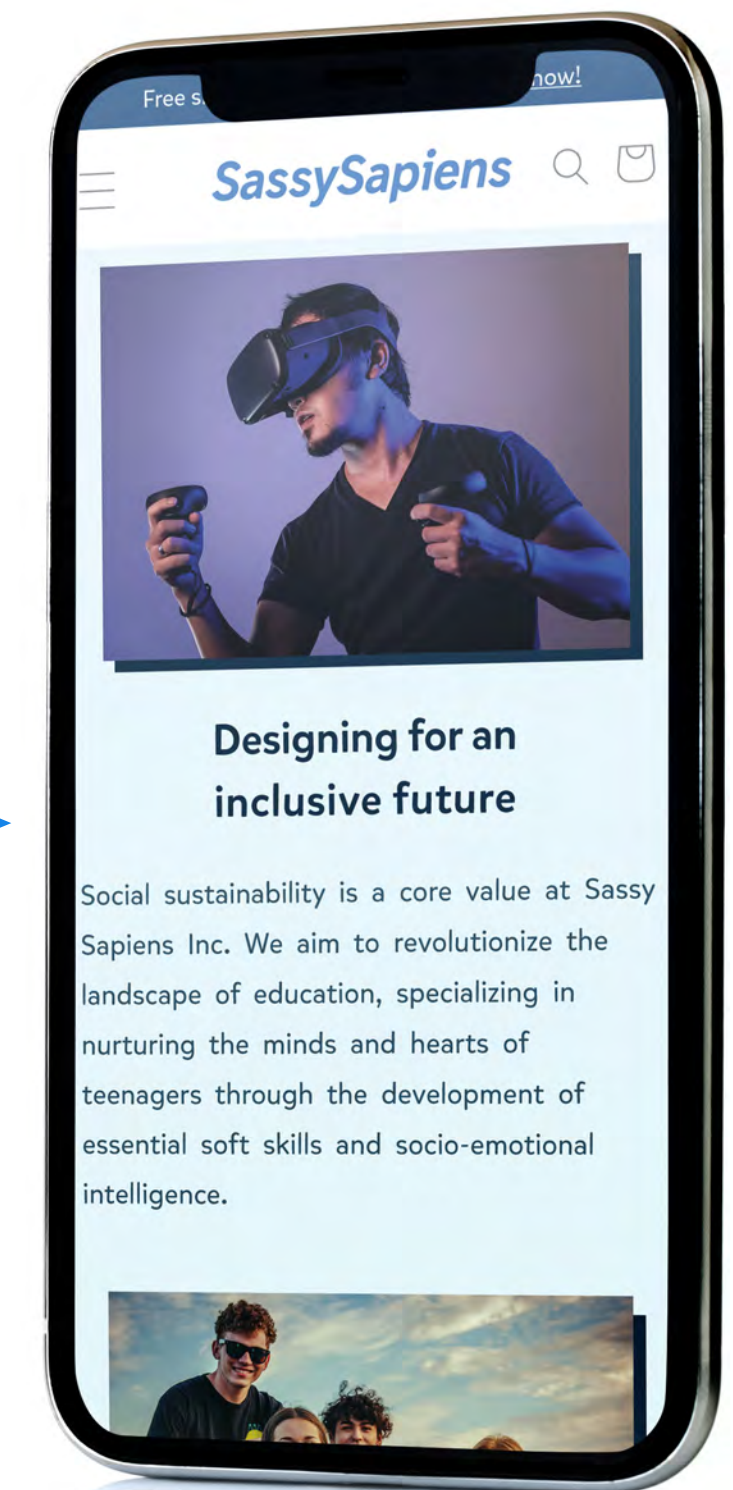


Flesh-like Silicon

Uncanny Smile  
Aluminium Mesh



Scan the QR code to visit  
our mobile website



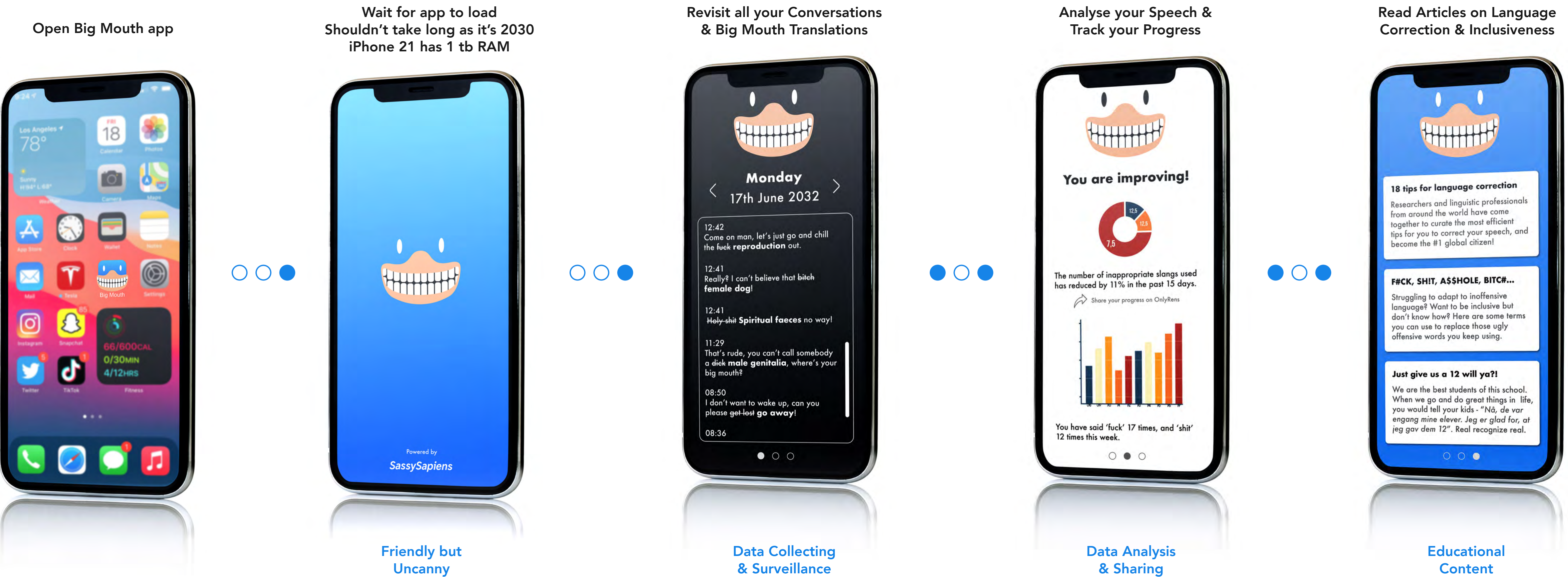


# # 3

## Big Mouth App

To complete this (speculative) educational tool, Big Mouth comes with an app where users can get live feedback on how and when Big Mouth corrected their speech, keep track of their progress, and read articles to further educate themselves on the topic of inclusivity, language correction, and global citizenship. Adding the character logo to the app anthropomorphizes the whole experience and makes Big Mouth not only something to wear, but also a helping buddy through your journey of being inclusive.

The app was developed not only to show the educational side of Big Mouth, but also to shed light on the surveillance aspect of such products. In today's world, our conversations, behaviors, and movements are all constantly tracked by various digital products, all while presenting themselves with an innocent and helpful facade. The implications of such a tracking app includes personalized experiences, targeted ads, privacy concerns, and potential for manipulation and filter bubbles. While Big Mouth's progress tracking can enhance user experience and satisfaction, it is a matter of concern how this data can be secured from misuse and privacy breaches.



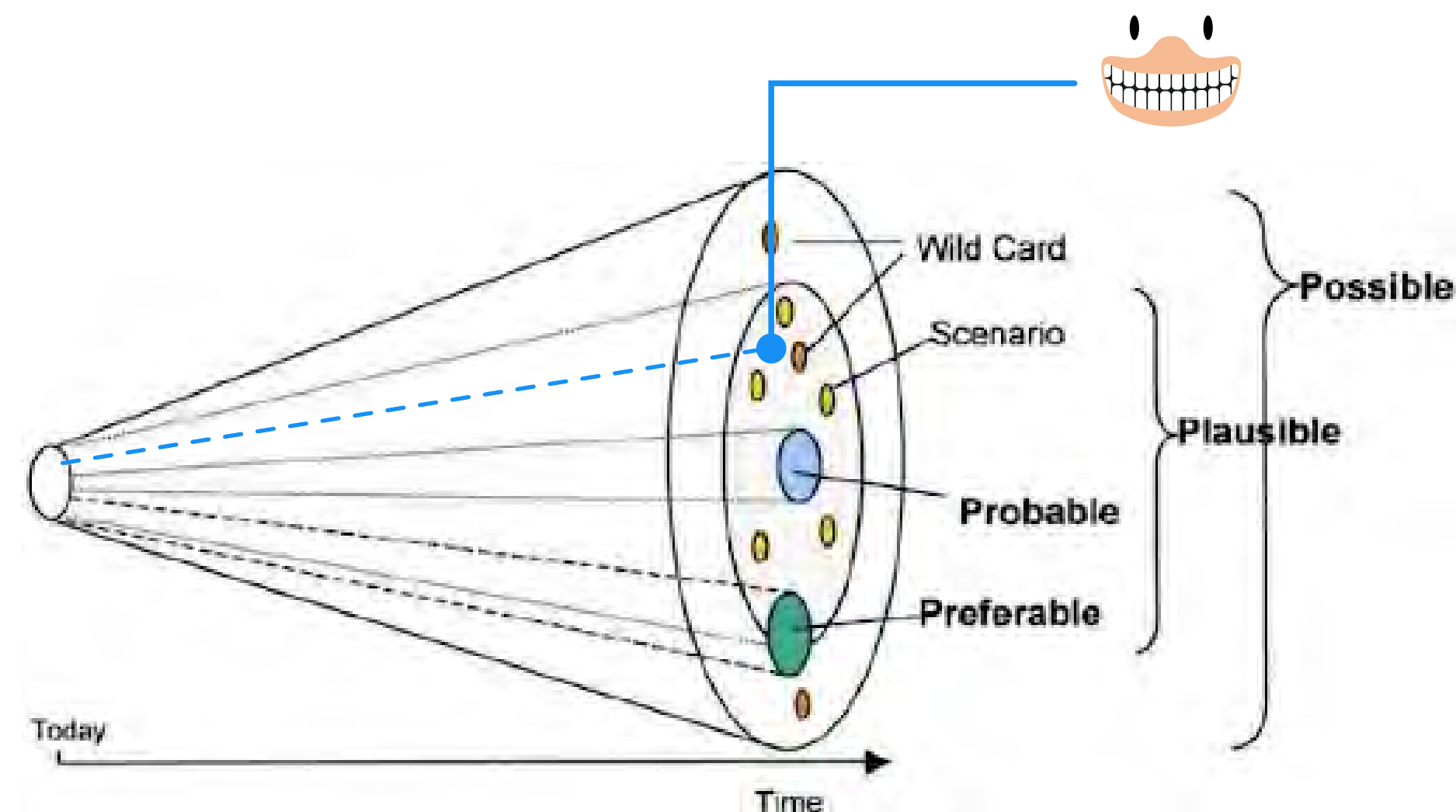
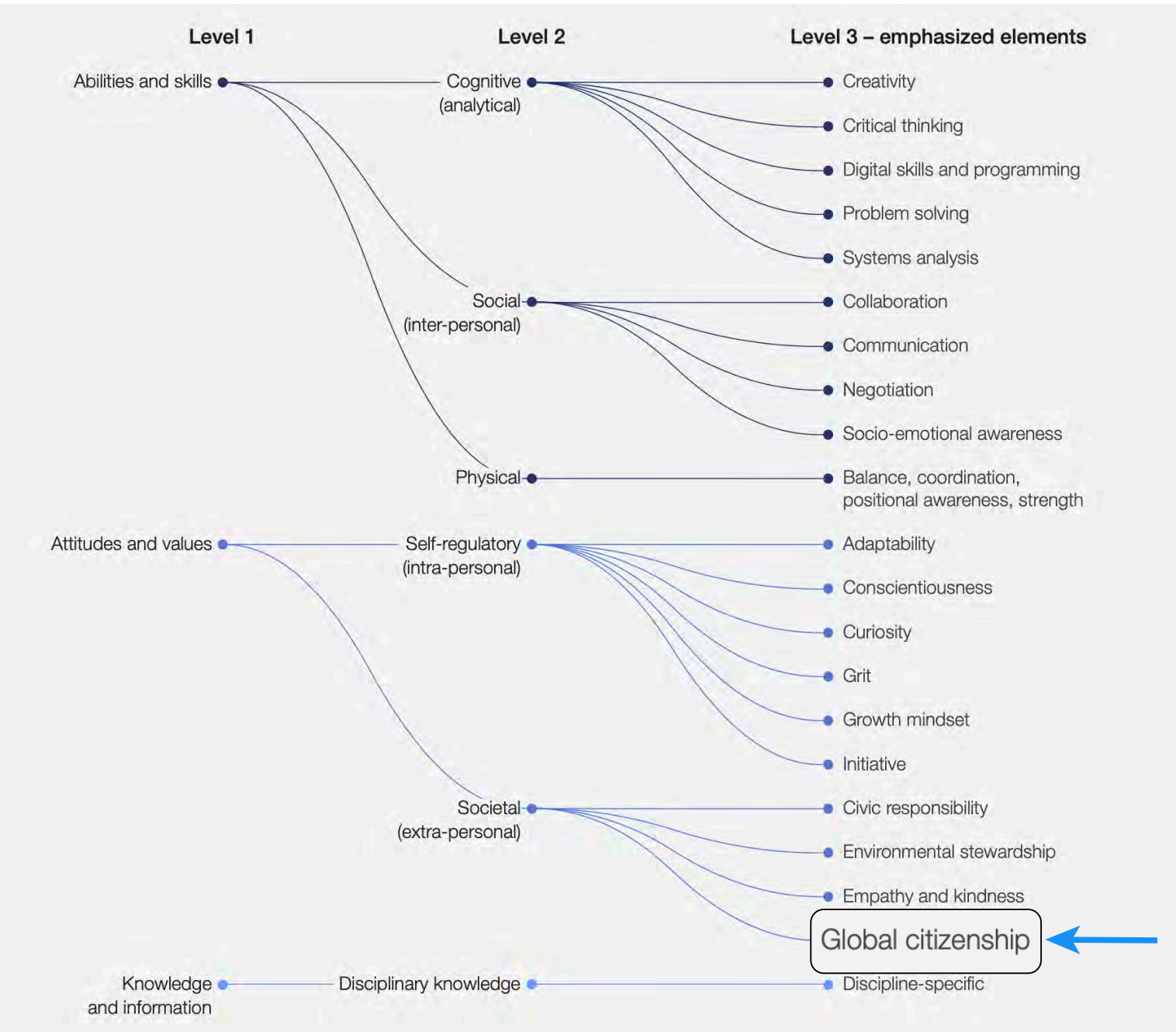
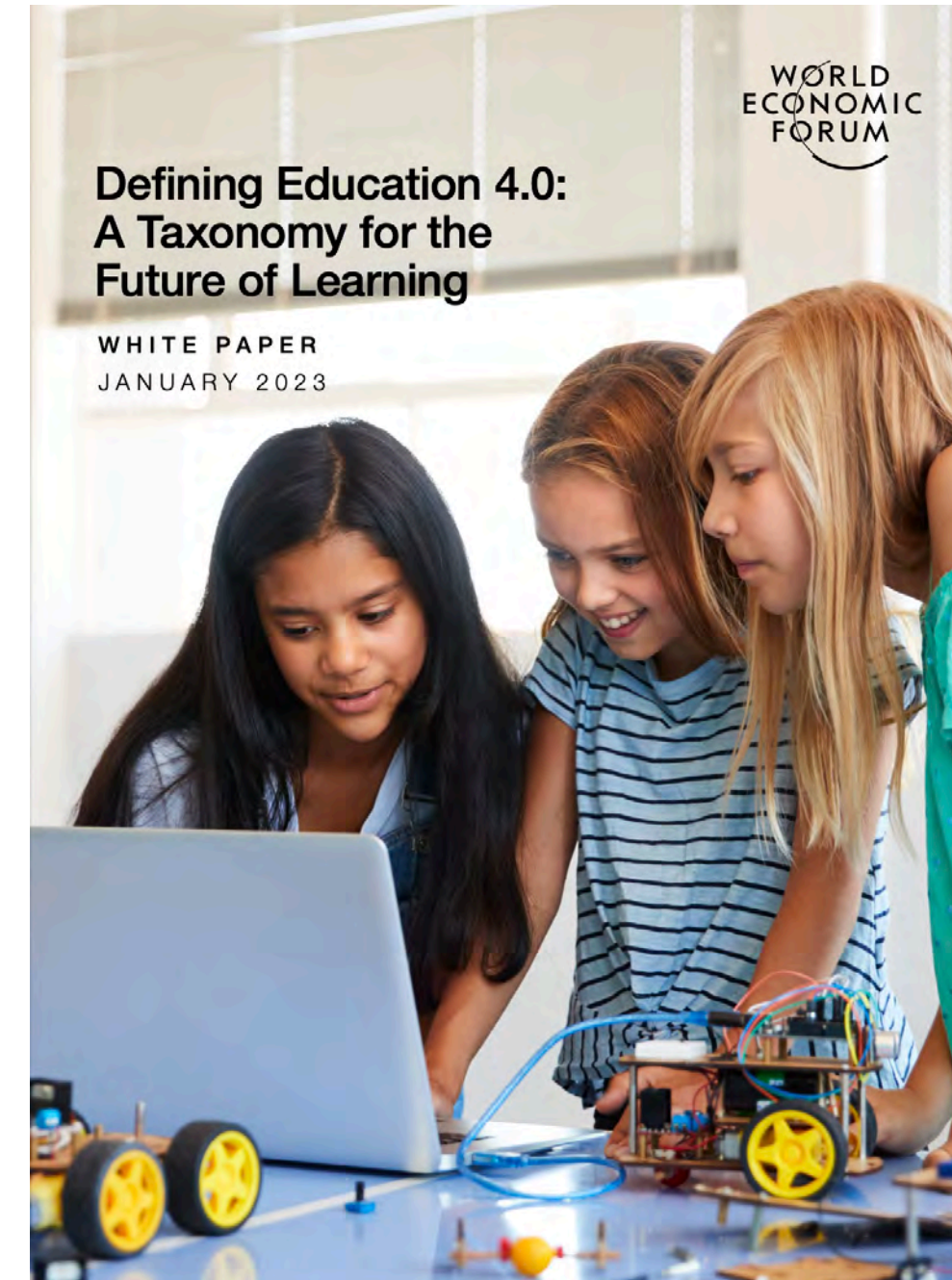


# # 4 Playful Speculations

## INCLUSIVENESS vs INTRUSIVENESS

The main discussion we want to trigger with Big Mouth is how intrusive we can let technology and design be in order to be more inclusive. Censorship is currently being used in a lot of social media and entertainment platforms in order to cater to a larger group of society without harming anyones cultural or spiritual beliefs. But this censorship also confines individuals and minority groups with their own freedom of speech and thought. For this reason, if you look at the future cone, we think that a form of autocorrect or censorship in language, is pretty plausible.

As a speculative project, Julie and I were motivated to explore the topic of education, driven by our shared passion for it. Our starting point was the Education 4.0 Taxonomy (published by the World Economic Forum and the Lego Foundation) which outlines the future of education as a shift from trivia-centric approaches to a greater emphasis on developing soft skills Furthermore, they suggest a need to emphasize on socio-emotional development, because this will be more important in the future workforce than trivia knowledge. For this reason, we wanted to cater to teenagers, as research suggests that teenage years are a crucial stage in the development of socio-emotional intelligence.



Having studied play theory, we wanted to develop a playful conversation piece that tickles the brain. Our plan was to dive deep into one important value mentioned in the taxonomy, completely misinterpret it, and develop an absurd educational tool. We use exaggeration as a form of humor, for example in the uncanny smile, and the website content. In our world building, we try to carry on this uncanniness with the invasiveness of the Big Mouth App. We also use replacement as a form of humor, because of the surprisingly random translations Big Mouth generates if you say something offensive. Most of the translations were absurdly written to showcase the frequent imperfections of artificial intelligence.

At the start of this course, we discussed how speculative design can be misinterpreted. If you look at the 'Audio-Tooth Implant' from Auger-Loizeau in 2001, some people interpreted the tooth to be real. We wanted to exaggerate Big Mouth's form so it would be obvious to the spectator that this is a speculative and playful conversation piece, more like a mockery of the future. We also understood through this project the importance for playfulness in a speculative design project, as it helps prevent dangerous misinterpretations by the audience, and aids in a friendly and open discussion about the future.



# OBJECTS

I kickstarted my professional career with a start-up in New Delhi. With a passion to experiment with form and material, Objectry designs table-top products and furniture with the intention of making basics interesting. They work with a number of crafts including Black pottery from Manipur, Woodwork from UP, Terracotta pottery from Haryana, and more.

Working with Aanchal Goel and Sugandh Kumar (Co-Founders), was a rather unique and refreshing experience. The duo had a quirky approach of drawing inspiration from modern art and architecture, and translating it into home decor products with great utility and aesthetics. I gained a ton of hands-on experience working with wood, managing and personally conducting photoshoots, and making visual content for their social media and website.

Following are a few of the products I had designed and crafted during my time at Objectry.

## #1 Ball Stand Planter

A hemispherical planter made with Sheesham wood, with a 3 legged brass stand.  
Sculpted on lathe machine; Finished by hand.



OBJECTRY



## # 2 Ball Clock

A spherical sculpture made with Sheesham wood in the form of a clock. Sculpted on lathe machine; Operated and finished by hand.



OBJECTRY



## # 3 Ball Ash tray

A blend of Teak wood and Mild Steel to form a symmetric ash tray, easily washable. Shaped on lathe machine; Sculpted and finished by hand.





## # 4 Slant Bowl set

A set of bowls to quench your cravings, made with Teak wood and Brass.  
Sculpted on lathe machine; Finished by hand.



## # 5 Slant Keychain

A keychain made with Teak wood that will double up as a mobile holder for those emergency facetime calls or netflix cravings.  
Sculpted and finished by hand.

OBJECTRY





---

A compost based vertical planter installation for backyard farming / gardening, with an integrated self watering system.

---

## Self Sustainable

with the integrated self watering system, GRO can last upto 20 days without watering.

## Modular

detachable flat and bold planter pods give a variety of permutations and combinations to choose from.

## Elegant

the wooden frame and the soft organic shaped planters complement each other in a rather earthy fashion.

## Ecological

it promotes not only recycling your kitchen waste, but also to start backyard farming or gardening.

## Compact

the thin and tall structure takes as little as 18 inches wide column of the wall, only being 5 feet tall.





# Introduction to FOOD WASTE

For the past two decades, the rate of global food production has increased faster than the rate of global population growth. Currently, the world produces enough food to feed TWICE the world's present population. Even then, 11% of the population on earth are UNDER NOURISHED.

\*According to a study by McGill University and the University of Minnesota  
Data from 'data.worldbank.org/

To put things in perspective,  
**Indians waste as much food as the whole of United Kingdom consumes.**

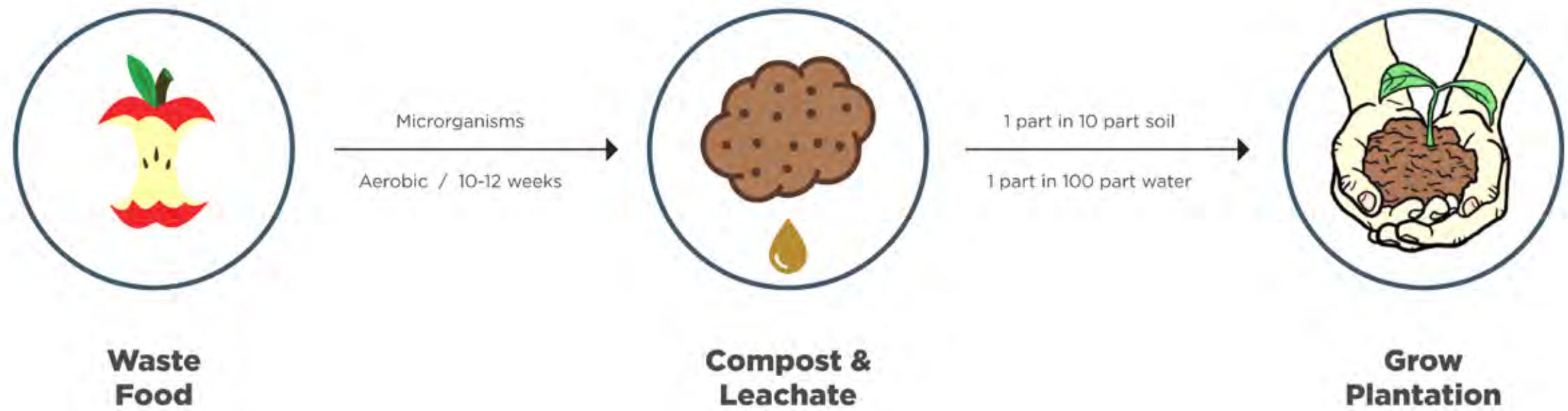
\*According to a study sited in Corporate Social Responsibility Journal (CSR Journal 2017)



Food waste is a major problem not just in India, but in the entire world. Tackling this issue in any way possible would have a very positive impact on the environment and on all beings.

## COMPOST

Compost is organic matter that has been decomposed by micro-organisms and RECYCLED AS A FERTILIZER and soil amendment.



## SURVEY INSIGHTS

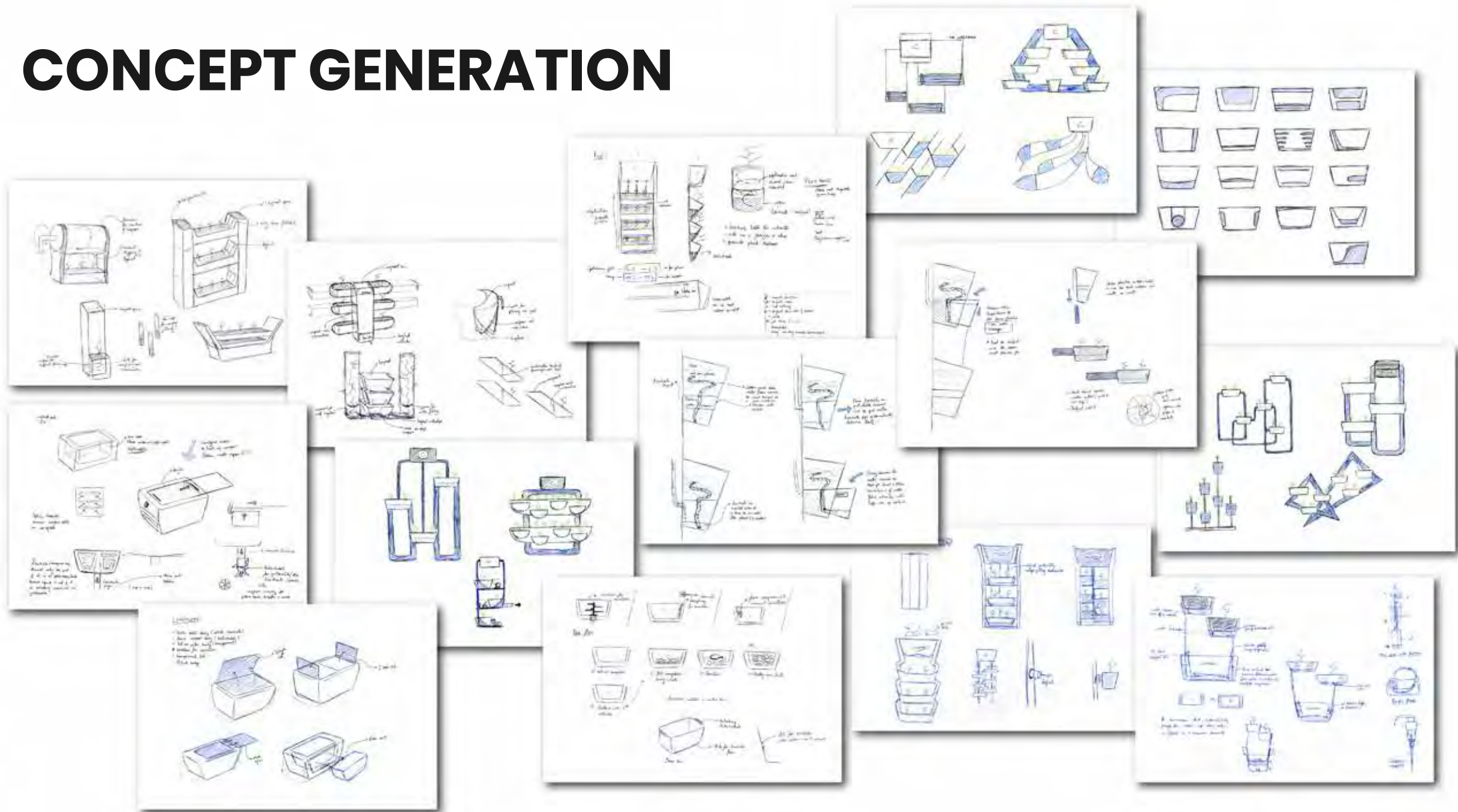
After learning about all composting techniques, tricks and equipment, I surveyed various households and gained a few interesting insights about the topic.



## FINAL DESIGN BRIEF

To design a composting system integrated with vertical plantation for occupying smaller areas and aiding backyard farming; Include a watering system that involves the compost leachate for regular plant nutrition.'

## CONCEPT GENERATION





# FINAL CONCEPT



Form inspired by a  
**Water Droplet**

NATURAL  
& SOFT

BOLD PLANTER



FLAT PLANTER



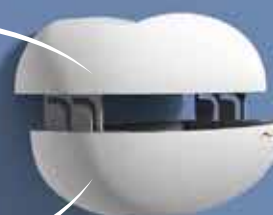
## Injection Mouldable HDPE Parts

with external attachment  
for reservoir motion



Planter

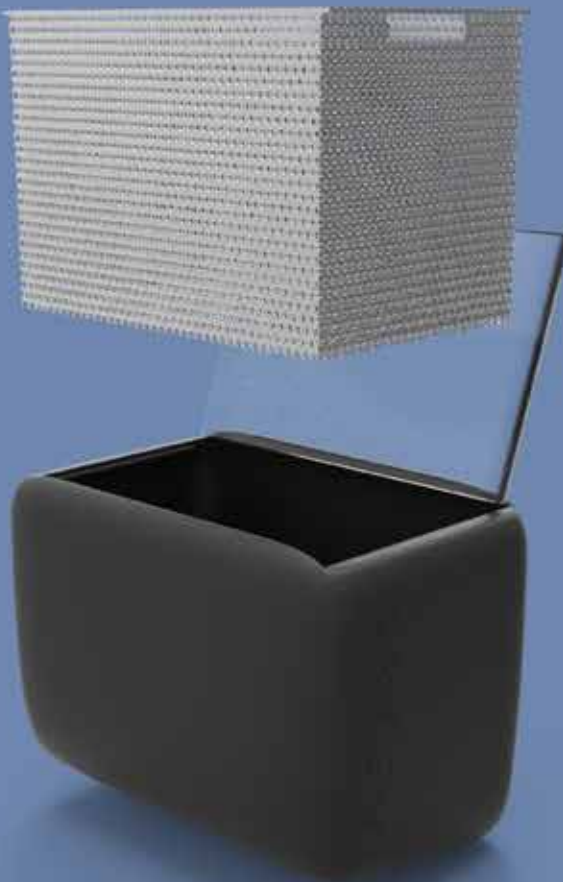
Water  
Reservoir



Replaceable

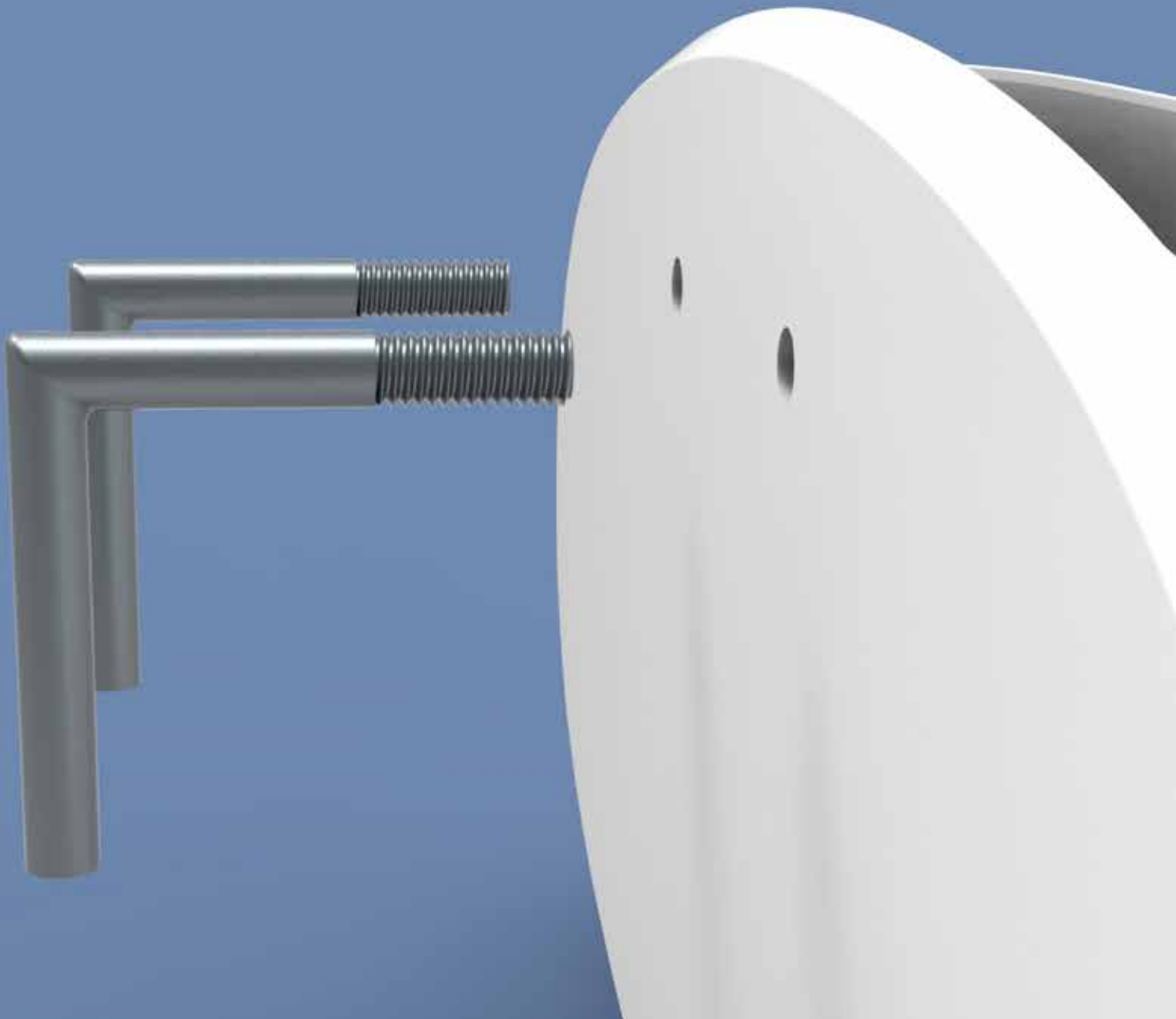
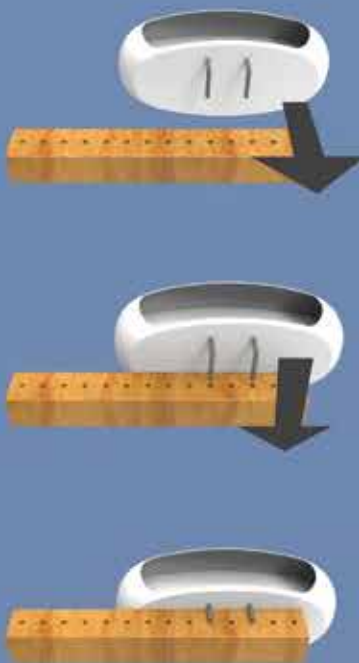
## Wire mesh Compost collector

with silicon - air tight leachate blocker



Screw hooks for

## Modularity and Portability





# PROTOTYPE

## MATERIAL USED

- Foam
- HIPS
- MDF
- Plywood
- MS

## MACHINERY USED

- Vertical Sanding Machine
- Circular Saw
- Vacuum Forming
- Drill Machine
- Jigsaw Machine
- Workshop Tools



# SCOPE FOR IMPROVEMENT

A more sophisticated mechanism can be integrated with the planters in order to have a smooth and better motion of the reservoir.

The overall dimensions of 'GRO' are based on the space constraints of a general middle class household's backyard garden/balconies in Delhi, and therefore, can be explored more for high end market and audience.

Composting is a natural process and takes its own sweet time. Carrying out the composting process in the proposed installation would definitely bring more challenges and areas of improvement.