ECOVEND

Theme: **Are we ready for the next wave?**
Are our current healthcare and wellness measures sustainable?

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Bhopal. Ludhiana. Mumbai. Pune.

Team ASAP

Name : **Anwesha Das**
Team Member
UI-UX Student

Name : **Prashita Gupta**
Team Member
Product Design student

Name : **Sarthak Arora**
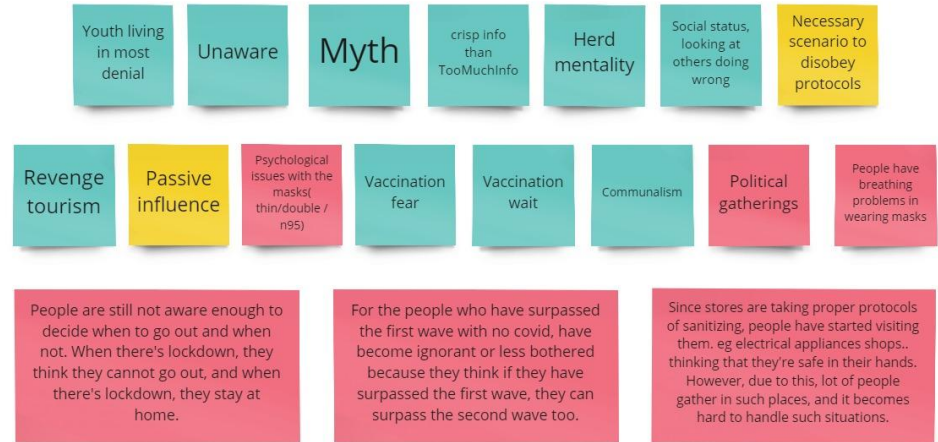Team Member
UI-UX Student

Rayomand Pavri
Team Mentor
Design Manager at Deloitte Digital

Problem Identified

- Despite several government precepts, people tend to **lose out on protocols** and live in denial even after the second wave of COVID-19, distinctly in public places or with companions, which could have dire consequences in future waves.

- Complementing this, the existing production cycle of protective wearables has **not been sustainable**. As a result, the amount of single-use plastic entering the environment has multiplied 9 times since the onset of the pandemic. Thus, we tend to be **unprepared** to welcome the next wave, particularly in terms of **sustainability of existing solutions** and the **denial of its consequences** for human behavioral change.

Issues

Youth living in most denial

Unaware

Myth

crisp info than TooMuchInfo

Herd mentality

Social status, looking at others doing wrong

Necessary scenario to disobey protocols

Revenge tourism

Passive influence

Psychological issues with the masks(thin/double / n95)

Vaccination fear

Vaccination wait

Communalism

Political gatherings

People have breathing problems in wearing masks

People are still not aware enough to decide when to go out and when not. When there's lockdown, they think they cannot go out, and when there's lockdown, they stay at home.

For the people who have surpassed the first wave with no covid, have become ignorant or less bothered because they think if they have surpassed the first wave, they can surpass the second wave too.

Since stores are taking proper protocols of sanitizing, people have started visiting them. eg electrical appliances shops.. thinking that they're safe in their hands. However, due to this, lot of people gather in such places, and it becomes hard to handle such situations.

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Urgency/Importance

- **Urgency of the problem -** Due to the fact that many people are stuck at home, the concept of **revenge tourism** is fueling the existing problem of **herd mentality**. As a result, the number of people who do not follow protocols, disregard precautionary measures, and violate social distancing practises has increased.

- **Drawbacks of existing solutions -** like increase in the use of **single-use plastic**, the inability to breathe while being **uncomfortable**, and a **lack of motivation** to use them and follow protocols on a daily basis.

- **Impact of the problem -** With the increasing number of vaccinations, travel is bound to increase. As a consequence, people also tend to make their companions feel **insecure** even with minor disobedience of the protocols.

The redesign of the existing solutions will try to work on the following aspects:
- Aware the unawares
- Educating the people living in denial
- Sustainable production and consumption

Habits

People are ignorant	Habitual problems	Changing habits

Stakeholder Related

People in different profession have different personal needs.	1-2-3 tier cities people need to be taught	Villagers/low wage workers dont contribute much in the spread of corona	Age 18-55

Solution for technologically challenged people	Personal could be regular citizen, a doctor, a nurse, a sweeper.	Its the Individual Human over whom the survival of the fittest relies

Awareness

Anxious way of portraying news which leads to denial over time	Youth living in most denial	old people victims living in denial

People who come in the category of "youth" are very much aware and careful in terms of this.	Intake of healthy supplements = thinking that they will not get infected	unawareness of new rules post 1st/ 2nd Lockdown	Infected recognition

Targets

Consider necessary situation to disobey protocols	Stop Mis-information spread	Solve Inefficiency of existing digital solutions
Vaccinated recognition	Crowd vaccination may help	Reversing a habit.

System

Individual realization will help fight covid and future pandemics	reduce capacity in public sector areas	6-7 years with maks for sure
They have already taught all the protocols	Govt can take steps like even/odd system	Govt. cannot teach public now

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Stakeholders

Our team performed semi-structured interviews, surveys, brainstorming sessions and competitive analysis for requirement gathering. These process fruited many useful insights which we have represented in form of 3 user personas.

Broadly these personas have been structured according to the following age groups:

- 18-22: Young Adults
- 23-39: Working People
- 40-55: Older people

Everyday activities:

- She is responsible member of her family and helps them regularly.
- Anusha is a final year journalism student. She goes out multiple times a week, to capture news for her assignments.

Motivation & Goals:

- She wants to make sure that her family is safe from the virus. She sanitises herself as soon as she comes home.
- Due to the lockdown, she is anxious about her social life. Anusha wants to travel outside, and interact with her mates to keep up with her social life.

Frustrations:

- She sees a lot of people flouting the covid protocols on the streets, which really infuriates her.
- Due to the lockdown,she is not able to go out at the apt time which is needed for her assignments.
- Lockdown has caged her leading to less social interactivity, and more mental pressure.

Anusha Gupta

Age   : 21

Occupation   : Student

Location   : Delhi

"*I am an avid learner. I always thrive to bring out the issues which need dire attention. I strongly believe that Covid can be stopped entirely by self discipline.*"

Personal life

Financial responsibilities

Dependent   Independent

Approach towards pandemic

Non-serious   Serious

Extent of hit by Pandemic

Not much   Drastically

Motivates other people

Rare   Often

Awareness

Protocol

Technology

Environment
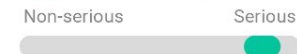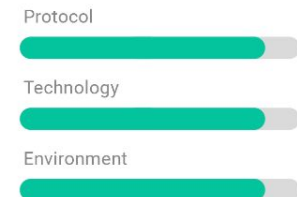
Preferred Wearables

Face shields   N-95 Masks   Gloves

Everyday activities:

- Om spends most of his day on his work desk where he does his work, attends meetings with clients.

- He goes out once every 3-4 days to buy groceries. He tends to buy vegetables from the local vendor and goes to a supermarket to buy other stuff.

- Om's wife works in a corporate firm, and she has to visit the office once a week. He usually drives her off and picks her up.

Motivation & Goals:

- During the first wave of pandemic, he had his plans fixed for his new architectural firm in future.

- He tries to obey protocols so that the pandemic is not prolonged because of him and he could go on a vacation as soon as all this ends.

Frustrations:

- Om doesn't like that her wife's company is making her come to the office unncessarily which puts her health at risk.

- Some of Om's friends have gone on vacations during the times of Covid. This gives him the feeling of being left out.

- Over use of existing masks, the threads tend to come off which irritates Om and makes him feel uncomfortable.

Om Kapoor

Age   : 31

Occupation : Architect

Location   : Pune

" I've wanted to go out with my better half for the past year, but I haven't been able to do so due to the ongoing pandemic. We've both grown tired of being cooped up for so long."

Personal life

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Awareness

Protocol

Technology

Environment

Preferred Wearables

Surgical Masks

Balasubramanium Bhaskaran

Age   : 51

Occupation   : Labourer

Location   : Chennai

"Survival has been difficult in this pandemic. I was jobless for more than 3 months. Post that too, I got less work. It is improving but I feel really insecure about my family's future."

Everyday activities:

- He wakes up early and goes to a nearby colony where few houses have collectively employed him as the car washer.

- Post that, he goes to the nearby crossway where all the daily-wage labourers gather to find work. If it's a lucky day, he finds work, else he returns to his place by evening.

Motivation & Goals:

- Bhaskaran's kids study in the nearby government school. He wants to send his kids to a private school for their future education.

- He tries to find extra jobs here and there. He wants to earn as much as possible daily so that he could save something for his kids.

Frustrations:

- At times, Bhaskaran is not able to get a job for a couple of days continuously and has to rely on his small savings.

- Bhaskaran is frustrated when people continuously tell him to wear masks properly. But he adjusts it as there is no way he is getting a job without a mask. At times, he goes on to wear a mask for multiple weeks.

Personal life

Financial responsibilities

Dependent   Independent

Approach towards pandemic

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Awareness

Protocol

Technology

Environment

Preferred Wearables

Cloth Masks

Explorations

Our team performed a multi-stepped ideation process. The output of these processes yielded many captivating ideas. Following are the aspects where we decided to work on:
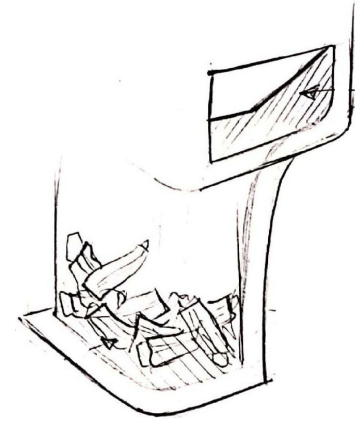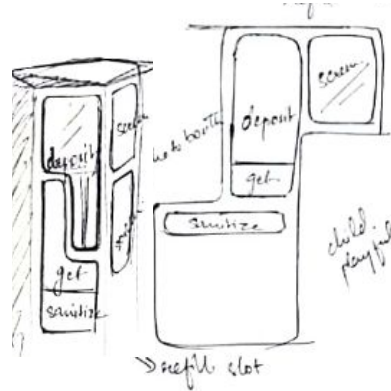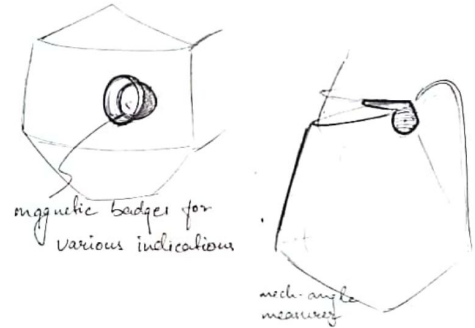
Feasibility

Adaptability

Ease of onboarding
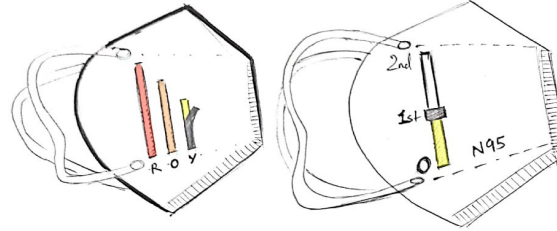
Masks with physical indicators

Vending Machine to collect old masks


Different form factor of vending machines

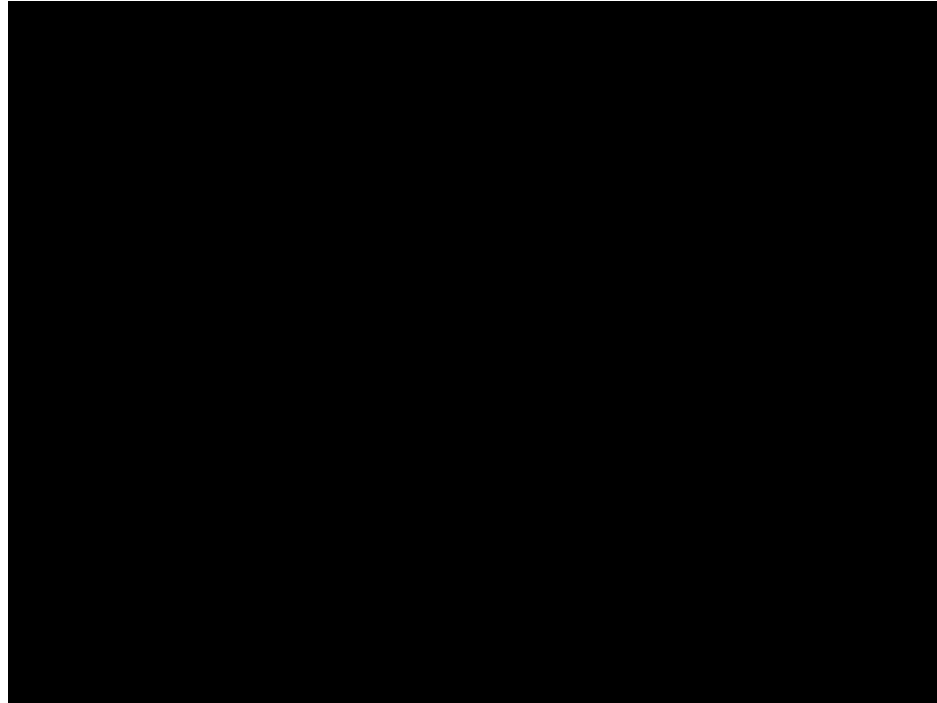Digital attachments for masks

ECOVEND

- ECOVEND is the first mask disposal vending machine in India. It introduces a new one-to-one **mask disposal system.**

- EcoPoints are earned by disposing of masks, which can be used to **purchase masks, sanitise hands**, and have mobile devices **sanitised** by the machine.

- These specially designed masks have **indicators** that wear out with the age of the mask (approximately 15 days), which could help users know when they need to **replace their masks** and **raise hygiene awareness**.
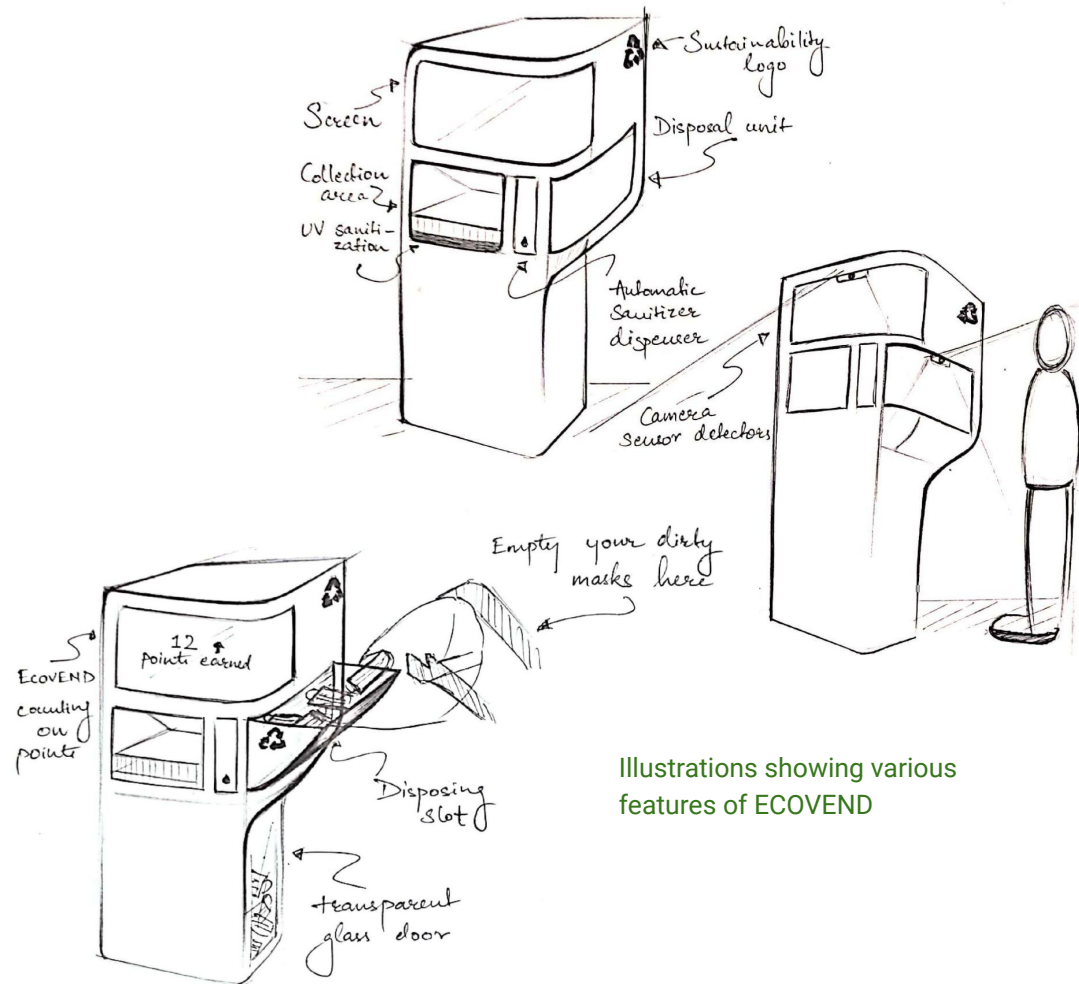
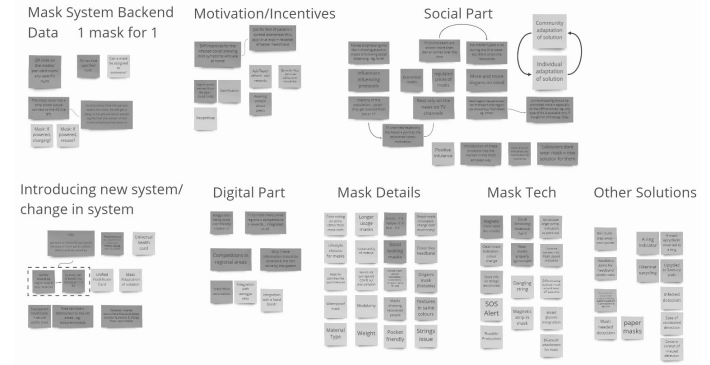Illustrations showing various features of ECOVEND

User Experience

Video Link

Design Process

Progress →

Brainwriting	Idea Generation	Concept Shortlisting	Workflow	Prototyping
Affinity Mapping	3-3-5 (Modified 6-3-5)	Pugh Matrix	User Journey Mapping	Lo-Fi Mockups
	Crazy 8	Crazy 8	Story Boarding	
	Classification Of Ideas	Information Architecture		

Mask System Backend Data   1 mask for 1

Motivation/Incentives

Social Part

Community adaptation of solution

Individual adaptation of solution

Introducing new system/ change in system

Digital Part

Mask Details

Mask Tech

Other Solutions

SOS Alert

Material Type   Weight   Pocket friendly   Strings issue

paper masks

Multiple design thinking techniques were used

Impact on the Society

- EcoVend introduces the concept of **EcoPoints** to try to **incentivize** users to practise **smart disposal**.

- When **used masks are disposed** of, a person **earns** EcoPoints, thereby preventing the environment from becoming clogged with plastic waste.

- It is a **socially responsible reward system** in which people can redeem their points for a variety of items. It can currently be used to **purchase N95 masks** and have **mobile devices sanitised**.

- This activity will instil the **habit of segregation** in users by **encouraging** them to participate in the global sustainability movement.

ECOVEND aiming to reduce the 75% plastic expected to go in landfills and oceans

If historical data is a reliable indicator, it can be expected that around 75 per cent of the used masks, as well as other pandemic related waste, will end up in landfills, or floating in the seas. With ECOVEND, significant amount of this waste can be differentiated at decentralized levels. This can ease out the task of segregation which is a labour intensive and expensive task.

ECOVEND: A step towards afterlife to masks

If every person uses one single-use mask each day for a year, it will create a total waste of 124,000 tonnes, 66,000 tonnes of which would be unrecyclable contaminated plastic waste. EcoVend tries to incentivize users to practice smart disposing of by inaugurating EcoPoints into it. A person will earn these EcoPoints when they dispose of old or used masks, thereby saving the environment from clogging of plastic waste.

Sustainability

- Eco-workflow Vend's is designed with **SDG-12 Responsible Consumption** and **Production** in mind.

- It attempts to **encourage users to practise smart disposal** by allowing them to dispose of masks at an ECOVEND.

- As a result, users can **prevent this waste from ending up in a landfills and oceans** while also benefiting from the incentives.

- These gathered masks at decentralized level will be **recycled/upcycled** into a variety of other products.
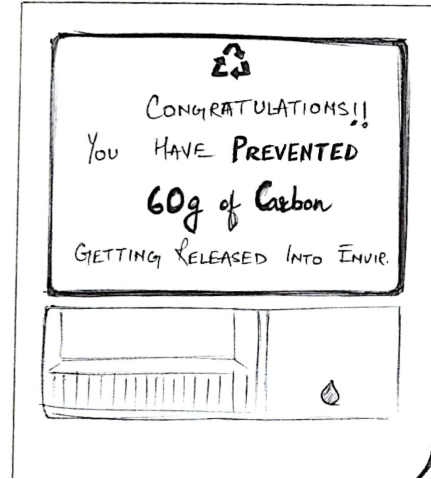
Information about Sustainability is displayed to the user spreading awareness and motivation.
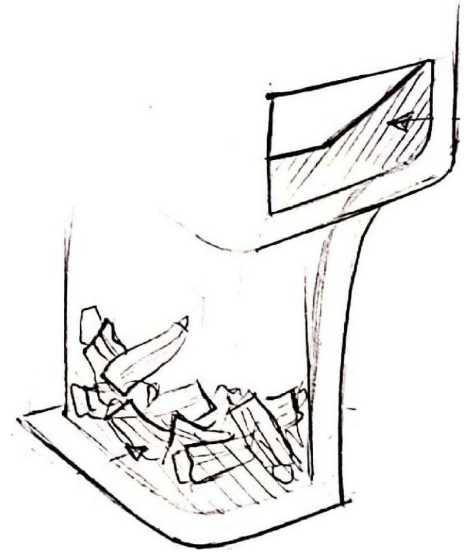
Masks segregation is getting decentralised

Execution & Business Viability

- The ECOVEND's form factor is designed in such a way that multiple faces of the ECOVEND can be used to install digital screens.

- These screens can be used to display illustrations to **attract users** as well as **advertisements** to support the vending machine financially.

- ECOVEND can also be used **to directly purchase masks** without disposing of one, allowing for a monetary gain.

- Finally, the collected mask waste can be **sold to recyclers.**

Advertisements shown on OLED screen of ECOVEND
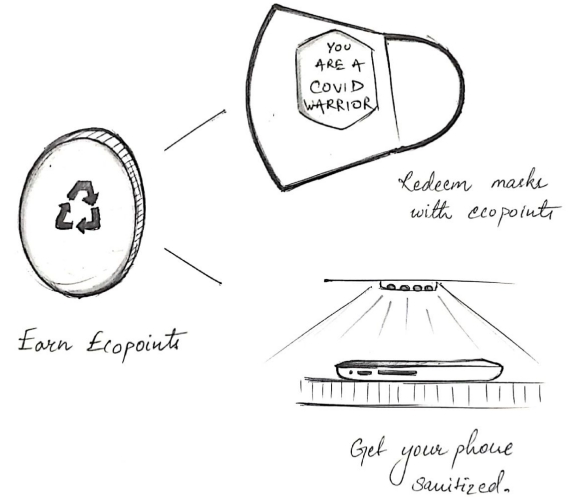
Facilities redeemed via EcoPoints can also be purchased directly.

Links to Resources

Miro Board   : [Link]

Project Video   : [Link]

User Experience Video   : [Link]

The starting point is not the Design, the starting point is Sustainability.

~ Stella McCartney.

Any queries and suggestions are welcome:

Prashita Gupta

prashita.gupta@avantika.edu.in

Sarthak Arora

sarthak18307@iiitd.ac.in

Anwesha Das

anwesha.das@avantika.edu.in