Co-existence and
Resource distribution

Madad

Co-existence and resource distribution in this project delivers an intervention that will help in **providing resources to the under privileged sections** of the society, specifically in the **urban sectors**. The idea of co-existence is to reduce the **gap between the 'Have's' and the 'Have not's'.**
Creative interventions inspired by **local inspirations** in the form of language is carried out to make the idea more acceptable by the users, which in this case is the general public.
Going from ideas to prototype was run through the **non linear process of constructive research** along with the aspects of **critical design**. This led to changes in the problem statement arrived initially through **user feedback**. A new set of problems added to the focus of the project while co-existence and resource distribution being at the core.

How do we design products and services that aid co-existence?

What can be the smaller steps which can lead to a bigger change in the mindsets?

Is the problem targeted is also something that others are noticing?

How can I combine local inspirations to my output to generate a meaningful intervention?

How can we give some purpose to the public spaces?

Special aspects   Insightful   Questions

Initial Concept

Designing units to dump dry, wet, medical waste with additional sections for feeding stray animals and for homeless/beggars to find food/resources
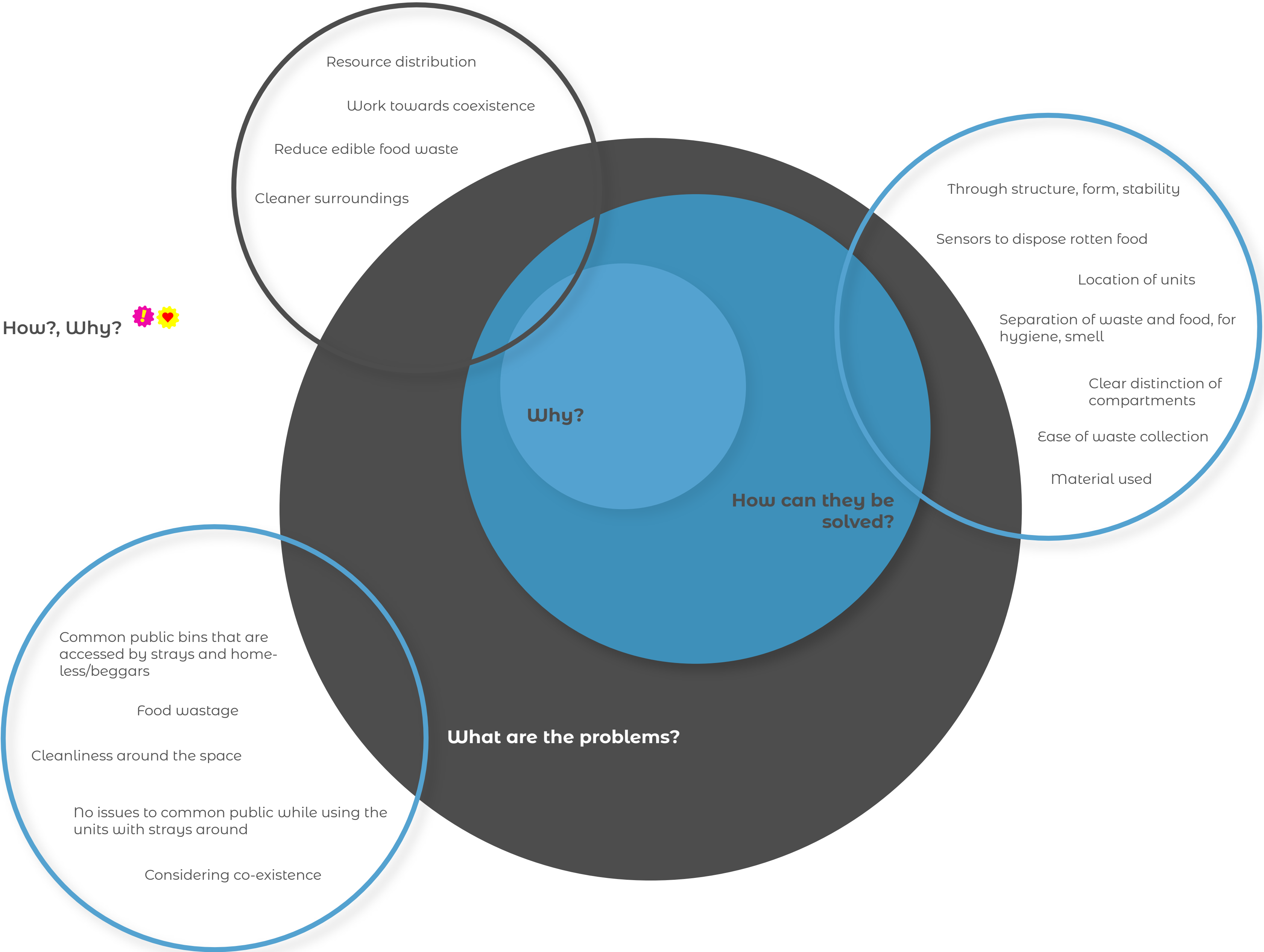
Co-existence

Purpose to public spaces

Resource distribution

Mindful use

Urban contexts

For underprivileged sections

Golden circle
Co-creation

Conducting a group activity to discuss the **What?, How?, Why?** 💥❤️ about the concept

Stakeholders

Normal Public
            Homeless/Beggars
Waste collectors
            Restaurants, food stalls

Why?

- Resource distribution
- Work towards coexistence
- Reduce edible food waste
- Cleaner surroundings

How can they be solved?

- Through structure, form, stability
- Sensors to dispose rotten food
- Location of units
- Separation of waste and food, for hygiene, smell
- Clear distinction of compartments
- Ease of waste collection
- Material used

What are the problems?

- Common public bins that are accessed by strays and homeless/beggars
- Food wastage
- Cleanliness around the space
- No issues to common public while using the units with strays around
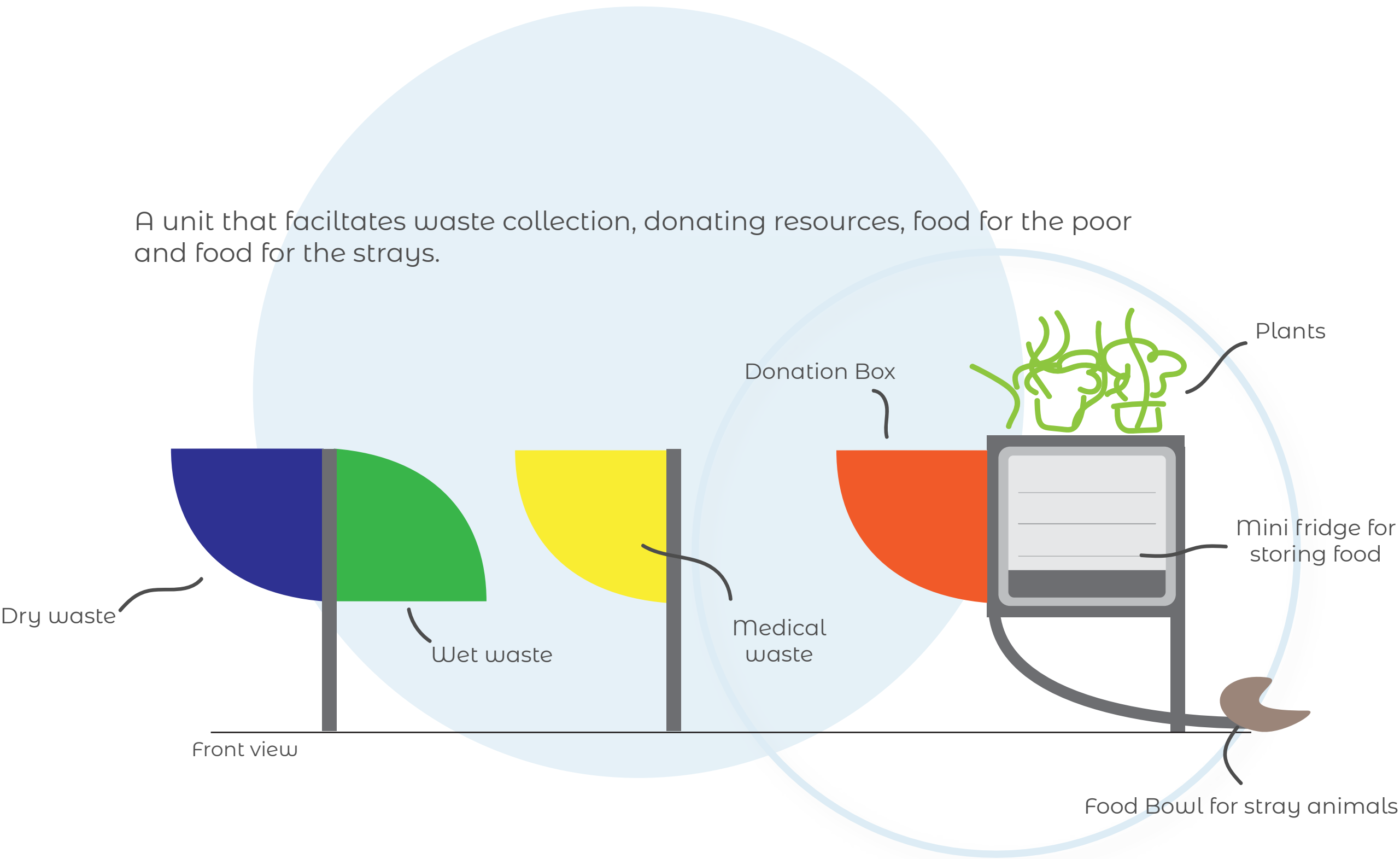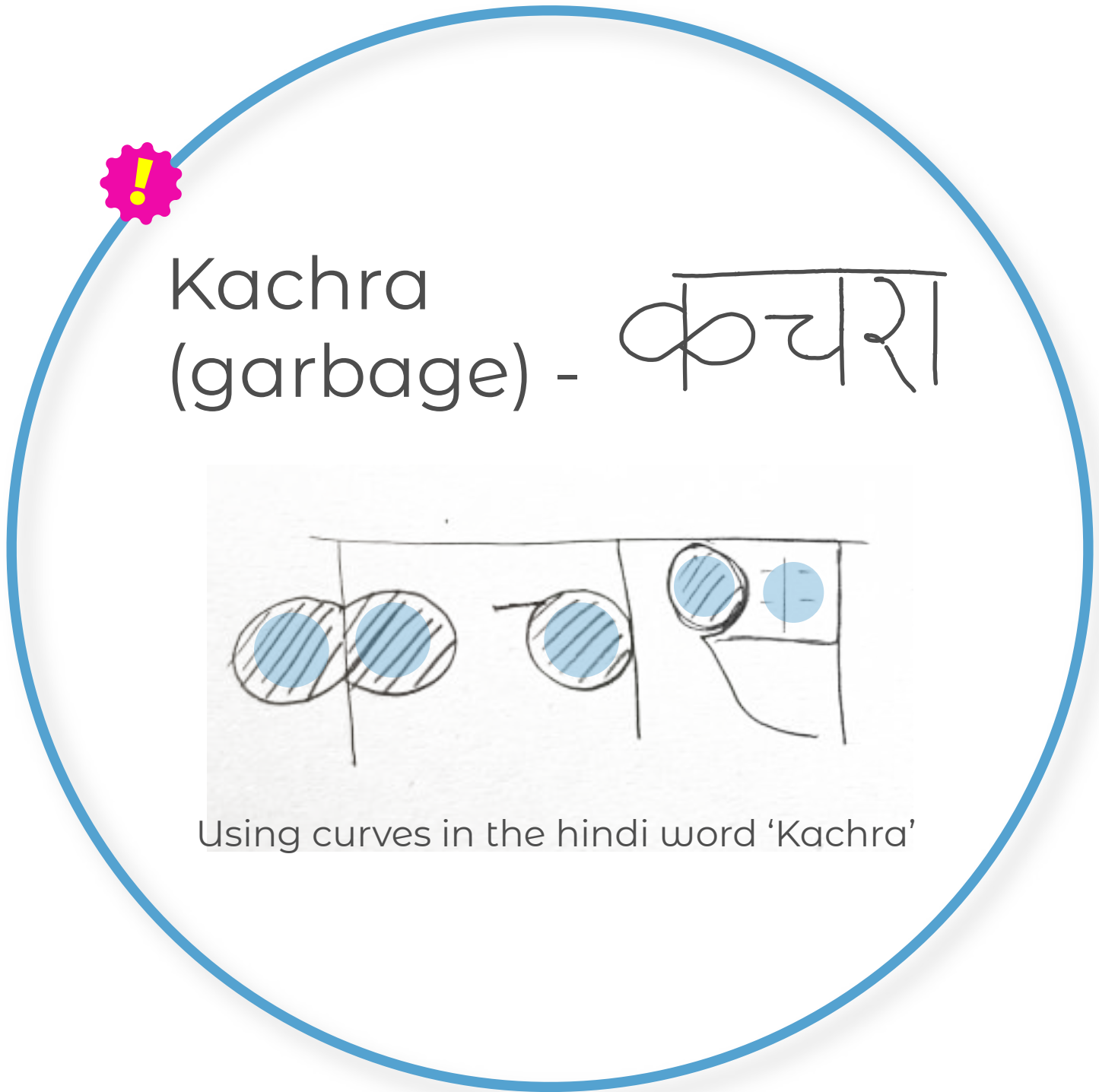- Considering co-existence

Ideation

Ideating on form and functions of the product.
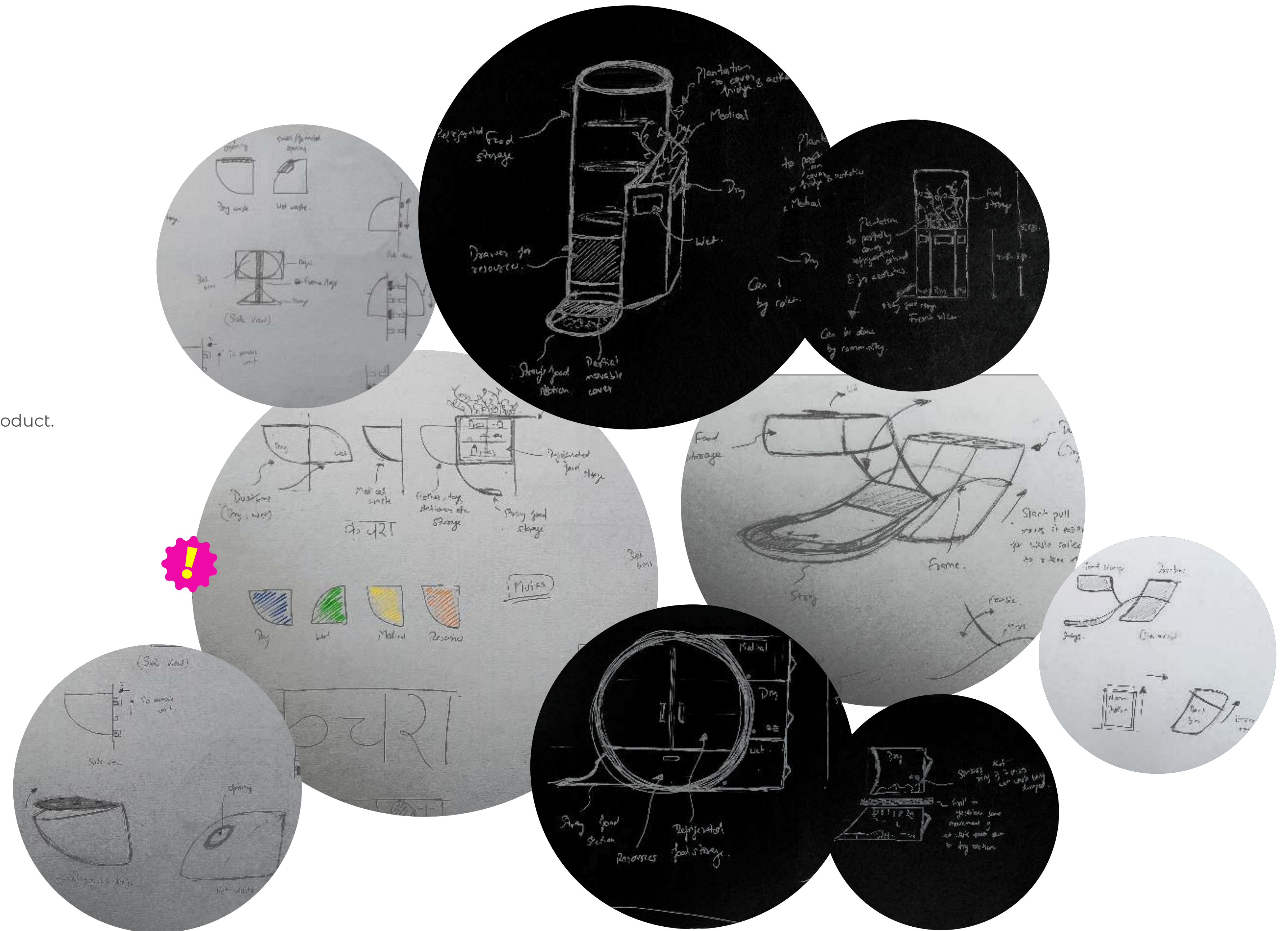
Concept Development

Using inspiration from the **Hindi language** for the form and structure of the unit. Creating a **unit for garbage collection and resource donation.**

Kachra (garbage) - कचरा

Using curves in the hindi word 'Kachra'

A unit that facilitates waste collection, donating resources, food for the poor and food for the strays.

Plants

Donation Box

Mini Fridge for storing food

Dry waste

Wet waste

Medical waste

Food Bowl for stray animals

Front view

Can work and maintained well in collaboration with community fridge services those already in operation or are upcoming.

Elements
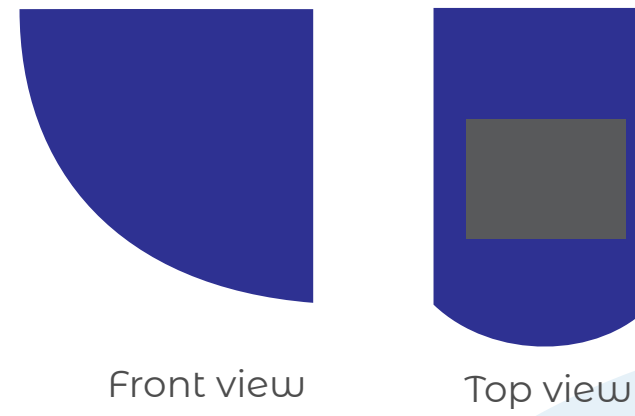
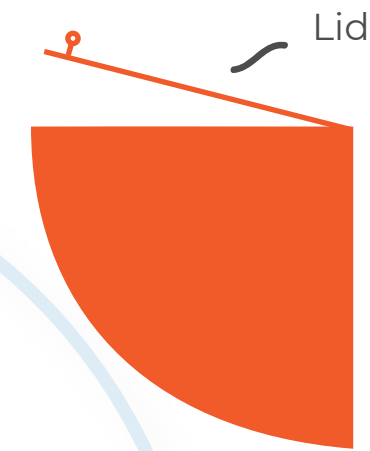## Dry waste

- To dispose dry waste
- Has a square opening to allow larger sizes of waste

Front view   Top view

Wet waste

- To dispose wet waste
- Has a conical/funnel opening to only allow wet waste to pass

Top view   Front view

Medical waste

- To dispose medical waste, eg, masks, gloves, syringes, etc.
- Has a lid opening to avoid spread of germs, diseases, etc.

Front view

Donation box
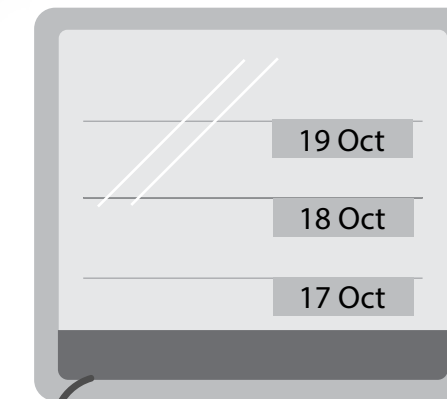
- To donate items like old clothes, toys, stationary, etc.

Lid

Mini fridge for storing food

- Datewise stands to help the users to know how old is the food.
- Shelves keep rotating as per day change. Digital display of dates that keep changing
- Separate section for veg and non-veg
- Regular cleanups from the organisations incharge.

19 Oct
18 Oct
17 Oct

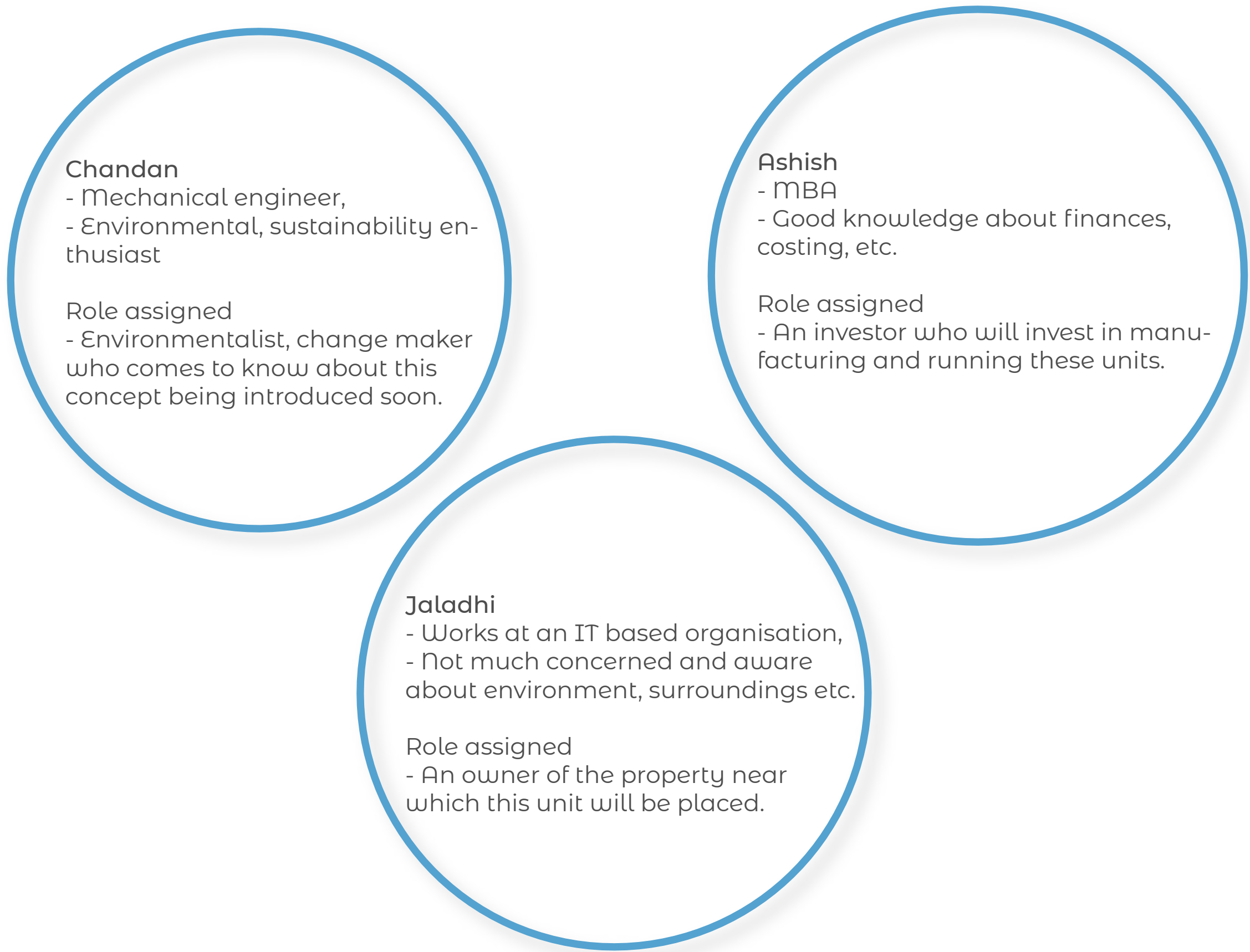Dustbin for rotten food

Food bowl for strays

- Partially covered bowl for feeding stray animals with leftover, unused food.
- Close to ground for easy access
- To facilitate clean surrounding.
- Regular cleanups from the organisations incharge.

Top cover

Bowl cavity
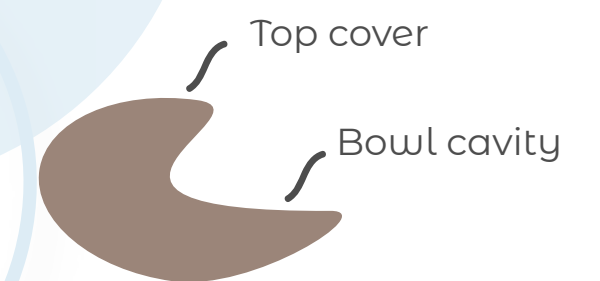
User feedback

Taking critical feedbacks from targeted users.
Using **role playing as a design probe** for honest and critical responses.

Feedback Received

Chandan
- Mechanical engineer,
- Environmental, sustainability enthusiast

Role assigned
- Environmentalist, change maker who comes to know about this concept being introduced soon.

Ashish
- MBA
- Good knowledge about finances, costing, etc.

Role assigned
- An investor who will invest in manufacturing and running these units.

Jaladhi
- Works at an IT based organisation,
- Not much concerned and aware about environment, surroundings etc.

Role assigned
- An owner of the property near which this unit will be placed.

Using 'KACHRA" seems a good idea towards creating awareness using a language that people can relate.

Consider disposing of E-waste as well.

Waste and food/resources are at the same place (close proximity).

Flies might get into the fridges while opening them.

Keeping medical waste near food and resources can be risky in covid times.

Using the word "KACHRA" and including food and resources in it have opposing effects.

A lid for the waste bins can be used rather than openings

The unit should not occupy much space in or near the property.

Transparent cover for the donated reources container can be used to have a distinction between waste and useful resources.

Including waste and resources together doesn't sound practical, people might not use it.

Strays also include cows who might lick the dustbins and fridge due to their height.

Revised Problems

⚡ Based on the feedback, considering food wastage, donations and stray feeding as primary needs. Substituting waste bins with recycling containers

Primary Research
Community fridges

The Public Fridge,
BTM, Bengaluru

Maintained by Balu, Geeta of the Cotha Life apartment.

Key insights about the community fridge

Filling of the fridge happens regularly.

Keeps an entry of who comes and keeps food, no documenting for donation items

Has to check personally if the food is good to consume or else has to throw

Maintenance expenses are on the society

Electricity bill comes around 500-600 rupees (apart from the fridge the space includes two tubelights).

No strays roaming around since the place has been maintained well.

⚡ Food items are kept for maximum 2 days, removes it personally if not used

People come and put food from far away places which shows the response has been good and concept accepted by people.

Have to stop people from putting in garbage near the place to maintain cleanliness.

Keeps a separate dustbin near the gate (inside the society premises) to throw food if not used.

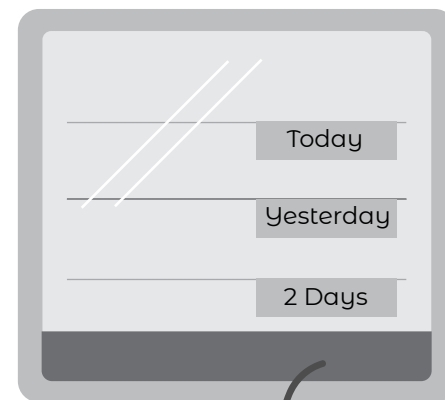People are asked to take away food and not eat at the place.

Revised Concept

Using inspiration from the Hindi language to create a unit for **food and resource donation** for the homeless and strays, and **collecting recyclable material.**

A unit that facilitates donating resources, food for the poor, food for the strays and giving out items to be recycled.

Madad
(Help) -

Using curved parts of the hindi word 'Madad'

Plants for shading the units below and for aesthetics

Cylindrical container for recycling items

Mini fridge for storing food

Front view

Transparent cylindrical container for donating resourcs

Steel frame

Food bowl for strays

Can be in collaboration with community fridge services already in operation.

Elements

Recycling container

· For recycleable items like plastics, metals, electronics, paper, glass, etc.
· Opaque container.

Shelves

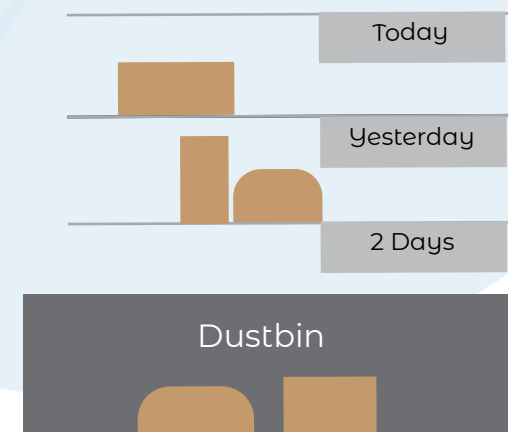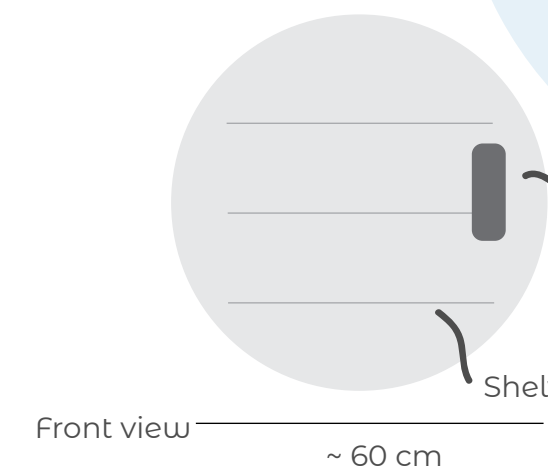Front view   ~ 60 cm   ~ 60 cm   Side view

Mini fridge functioning

· Daywise stands to help the users know how old the food is.
· Separate sections for veg and non-veg
· Regular cleanups from the organisations incharge.

Today

Yesterday

2 Days

Dustbin for rotten food
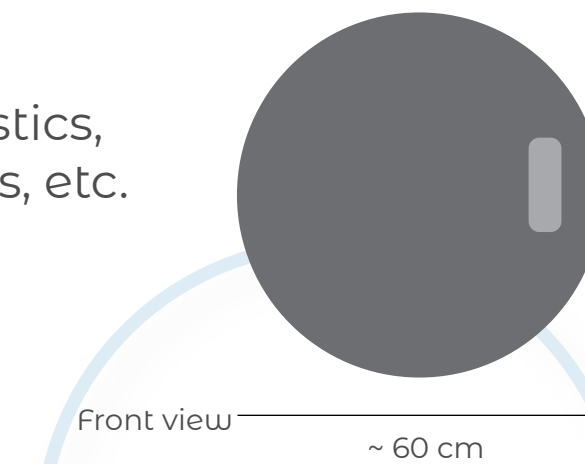
Donation container

· To donate items like old clothes, toys, stationary, etc.
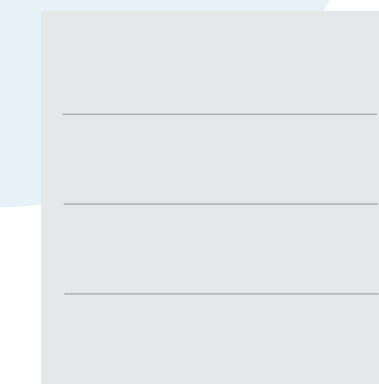· Transparent lid to see the items placed inside

Handle
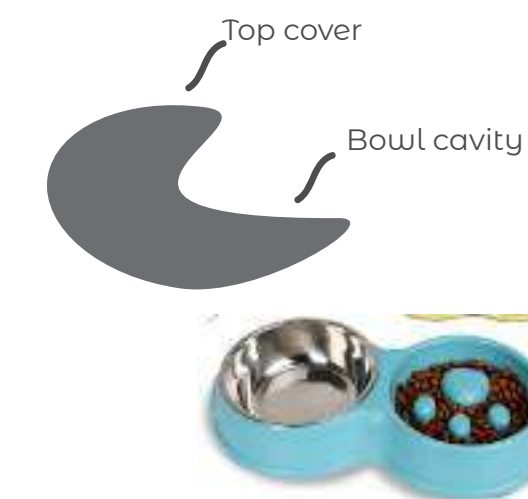
Front view   ~ 60 cm   Shelves   Side view   ~ 60 cm

Drawers keep rotating as per day change. Digital display of days that keep changing

Today

Yesterday

2 Days

Dustbin

Today

Yesterday

2 Days

Dustbin

Front view

Helps to discard food after couple of days to avoid rottening.
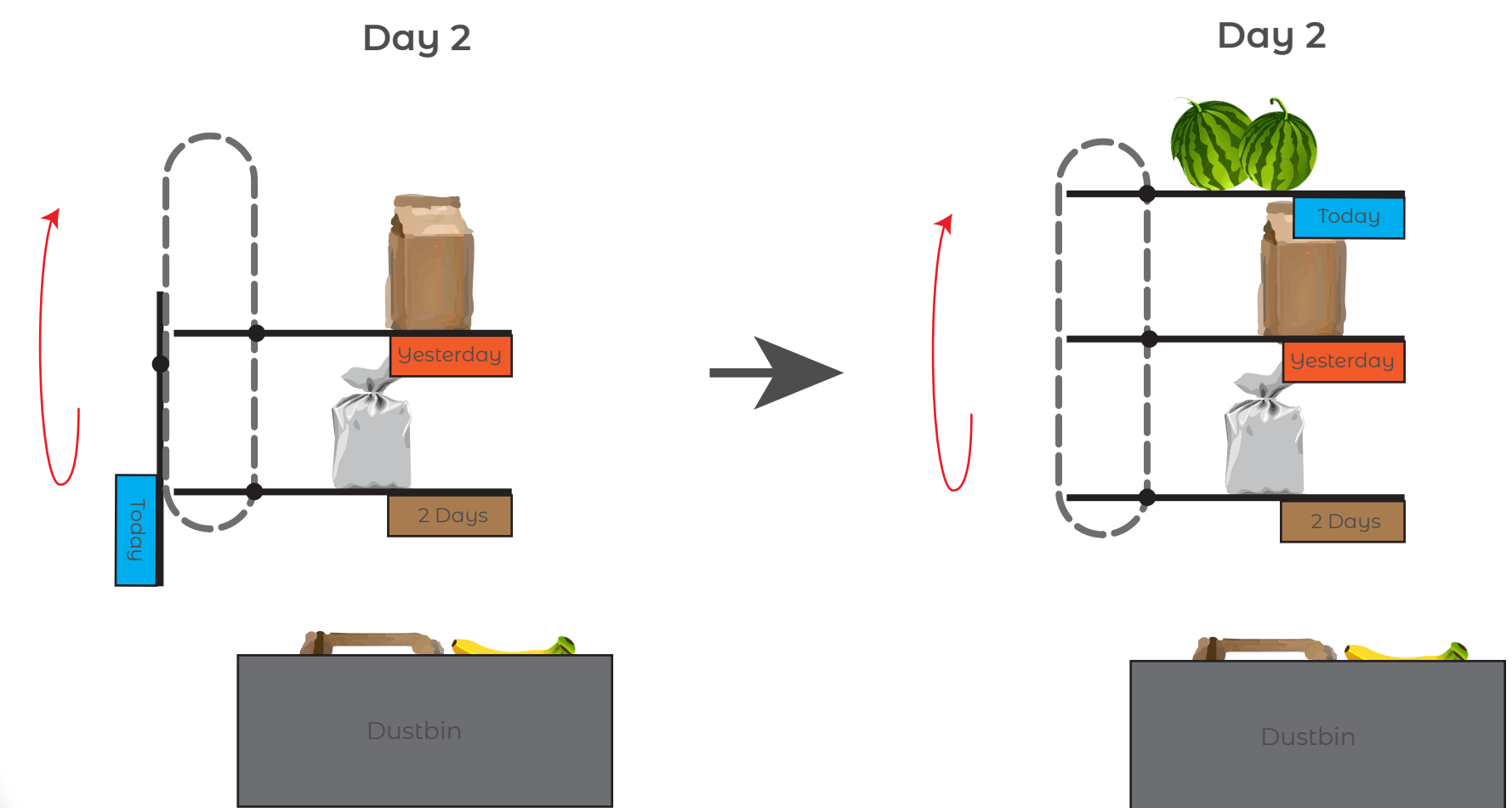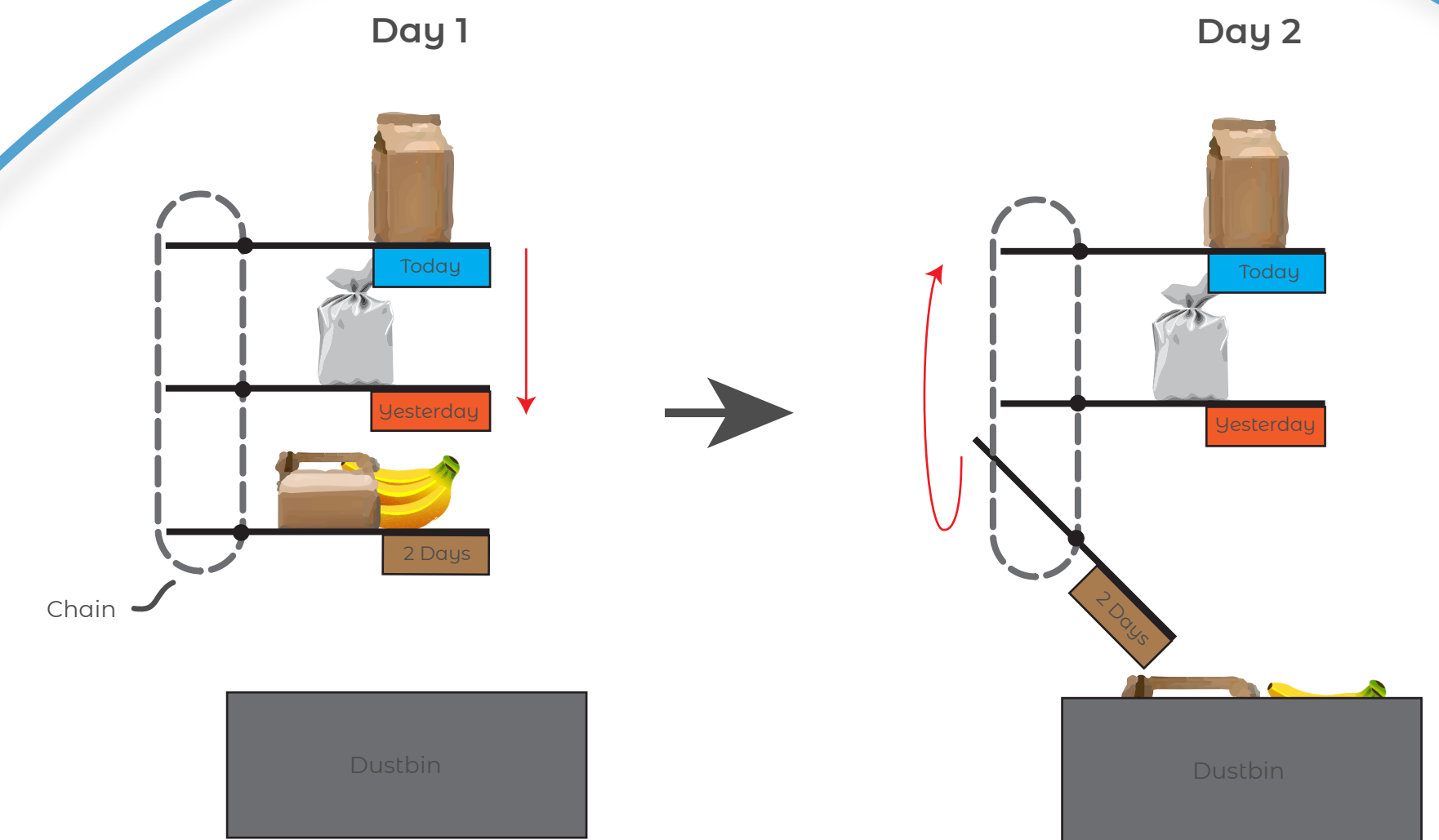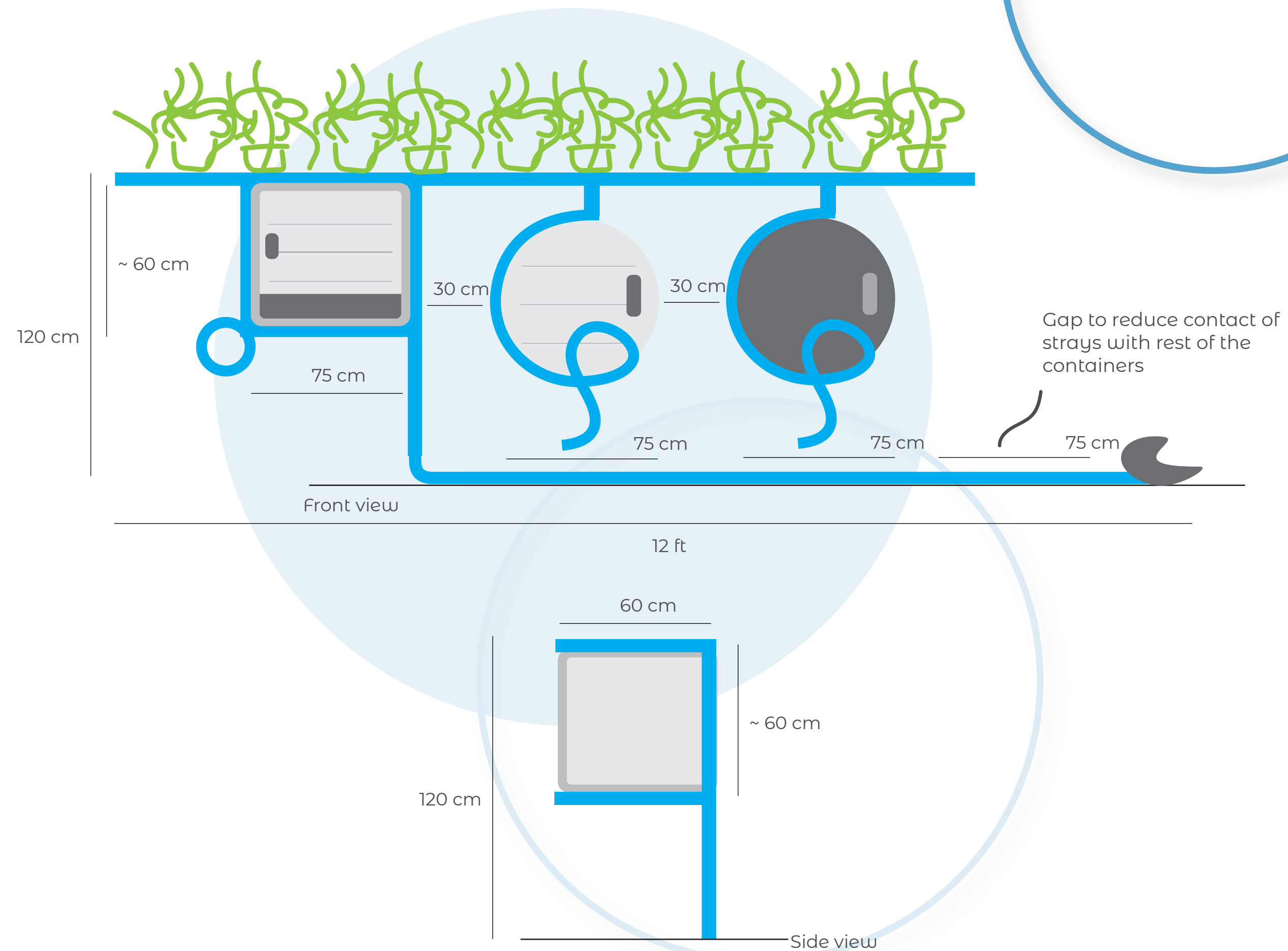
Food bowl for strays

Top cover

Bowl cavity

· Partially covered bowl for feeding stray animals.
· Close to ground for easy access
· To facilitate clean surrounding.
· Regular cleanups from the organisations incharge.

Functionality

Front view

~ 60 cm

120 cm

75 cm

30 cm

30 cm

Gap to reduce contact of strays with rest of the containers

75 cm

75 cm

75 cm

12 ft

Side view

60 cm

~ 60 cm

120 cm

Day 1

Today
Yesterday
2 Days
Chain
Dustbin

Day 2

Today
Yesterday
2 Days
Dustbin

Day 2

Today
Yesterday
2 Days
Dustbin

Day 2

Today
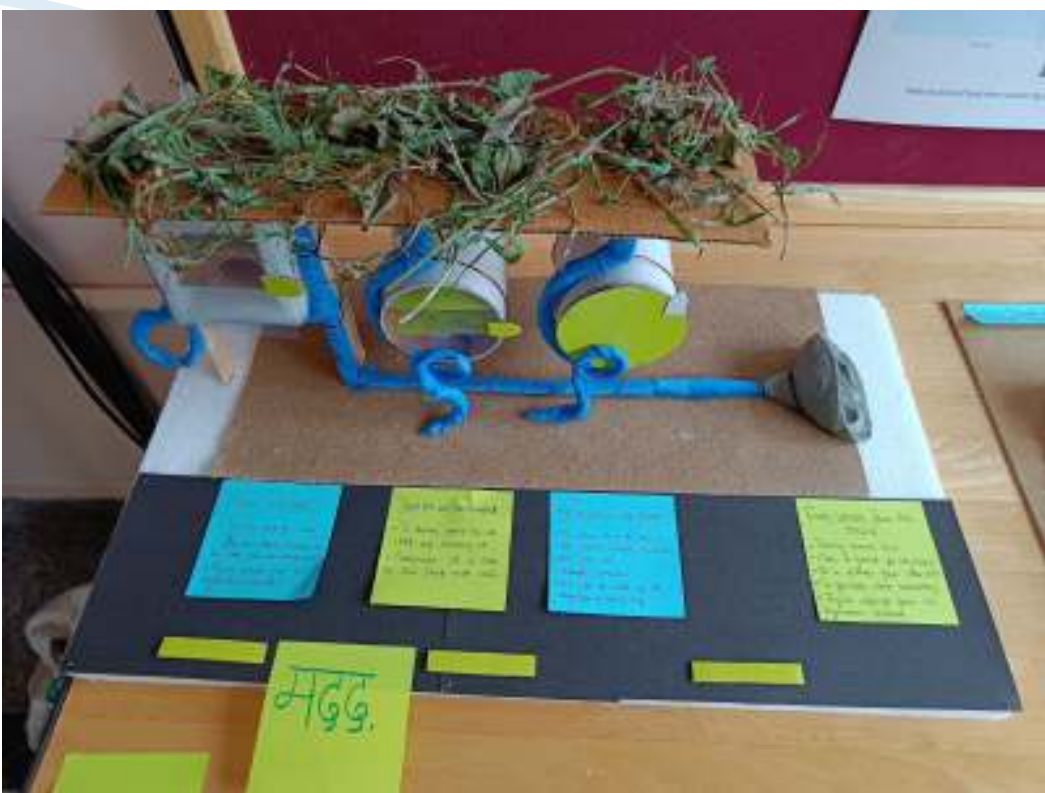Yesterday
2 Days
Dustbin

Side View

Prototype Model

A scaled down version of the 'Madad' unit and the fridge functioning.

Madad unit

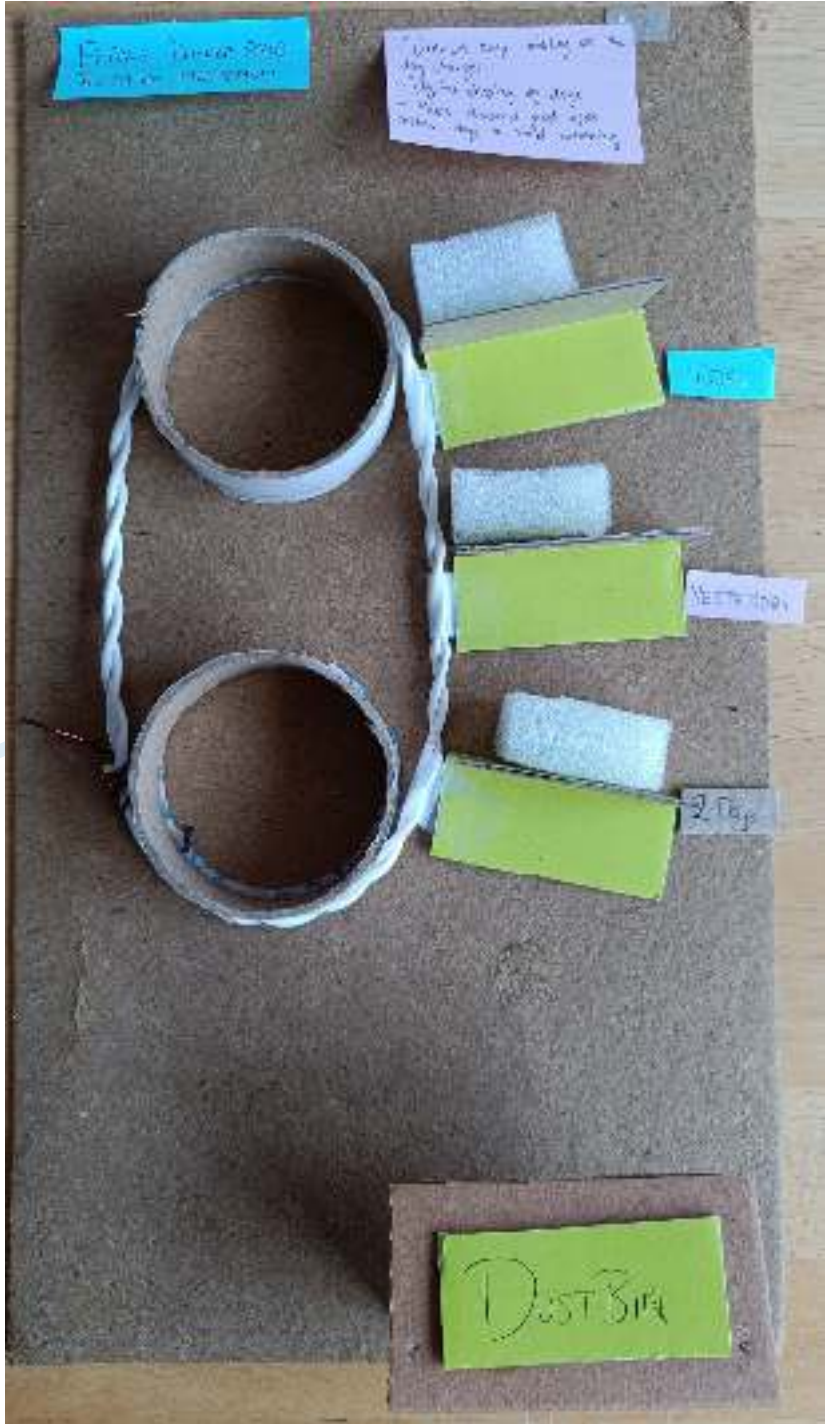Green covered top

Mini fridge

Donation container

Recycling material container

Food, water tray for strays (at a significant distance from other units)

Fridge functioning (concept)

feedback

The prototype is quite eye catchy due to inspiration from the hindi language.

The idea can also look at considering other words, for example, around concern, sharing, etc.

The fridge operating concept is interesting and can be usable in normal day to day households as well.

Such a concept can be included and practiced at school levels for the children to learn about food wastage and donating things at a much early age. The fridges can be designed to be empty majority of time to let them understand about reduced food waste.

Maintaining these units in public spaces can be challenging about who will take the initiative.

The product is good but what needs to be seen is how it is placed into a system and how then it creates an impact.

Reflection

Going about a non linear process in the workshop was a good learning curve by going against the linear. So far we as studio outputs have been coming up with ideation and concepts about what the outcome will be, but to further work towards from ideation, concept development to prototyping phase was worked with here. Co-creation while coming up with ideas before concept development was an interactive, engaging and efficient activity with the peers. Using the tool of 'golden circle' to build upon ideas on the lines of the What's?, How's? and Why's? was done. Got new points to focus on the concepts from the peers.
Critical design aspects were considered while creating the prototype in terms of, for example, how the mini fridge will work, who will maintain the units, the dimensional analysis, the power supply to the fridge, and many more which directs towards how to place design aspects in current conventions.
User feedback on the concept developed was something not practiced before and so was an interesting research direction. By actually involving the users to critique the designs, taking suggestions and feedbacks gave insights on what works and what needs to be changed or added. Moving from including waste bins to replacing them with recyclable material containers was a result of this critical feedback during the constructive research process. As a result of which, the prototype was made based on what users wanted and not only on concepts I ideated upon.
Contraints occurred while ideating without undergoing any sort of secondary research around the concepts and functionalities of the ideas due to habits of following the linear process of design. Limitations to reaching out the user groups for feedbacks on concepts was something that was faced. Adding to this, how can the concept decided be made more clear for the users to understand and give feedbacks to had to be done being more considerable in regards to the design language of users.
To conclude, the workshop was quite a needed source for learning the process of ideating to protoyping using a non linear process of designing. Critical design, constructive design research and co-creation are tools and resources that will be useful ahead and I will take a note to making a habit of including them in my design processes.

Further Scopes

From the feedback received, the concept has scopes of

To be implied at school levels to increase awareness about mindful use of food among children at an early age.

Figuring out a system into which this can be placed since the units need to be maintained.

Exploring different local inspirations that can be used in similar ways. Use of these local inspirations will help in acceptance of such concepts.

Working towards providing purpose to public spaces to communicate a sense of empathy towards environment and other entities of the world.