

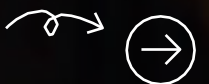
Need help to submit your application?

# Welcome to Solve for Tomorrow Design Thinking Toolkit

This interactive tool will guide you through each step of the Design Thinking process. All the best for your application.

Let's go →

Use the arrows to navigate through the Toolkit



# What's Samsung Solve For Tomorrow?

A competition like no other. It's a chance for you to design the future, exploring how tech can be used to solve a problem you care about.

# Why take part?

You dream it, we'll help you build it.

We're giving you the tools to solve a problem that matters to you. Start by coming up with an idea - we'll help you do the rest.

## Programme Milestones

### Top 100 Shortlist

- Top 100 to submit videos for further shortlisting to Top 40
- All 100 shortlisted will be awarded 'Certificate of Participation'

### Top 40 Semi - Finalists

- INR 20,000 cash prize each for all 40 shortlisted along with latest Samsung laptops
- Samsung Office Visits
- Innovation Bootcamp & Prototyping followed by national pitch at IIT Delhi

### Top 20 Finalists

- INR 1 Lakh cash prize each for all 20 shortlisted teams along with Samsung products.
- Online 1:1 training & mentoring by Samsung & Industry Experts

### 4 Winning Teams

- Winning Teams will get INR 2 Crore Incubation Grant.
- Other Awards:
  - Goodwill Award INR 1 Lakh x 2
  - Social Media Champ Award INR 50,000 x 1

Don't just take our word for it. [Click on](#) our past winners to know about their innovations.



Pranet Khetan



Tushar Shaw



Abhishek Dhanda  
Prabhkirat Singh



Aadish Abhijeet Shelke  
Bhagyashri Heeralal Meena



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## So, how should you use this resource?

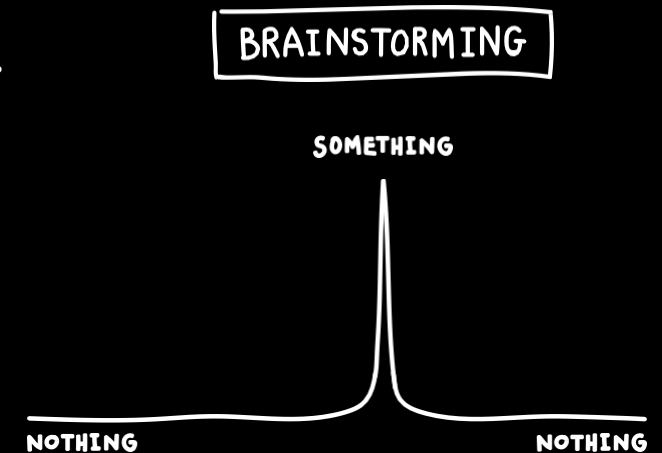
The Design Thinking Toolkit is for you if you're...

- Looking to make a difference
- Keen to come up with an idea of your own
- Not sure how to get started

Don't know where to start? No problem.

Follow the steps and you'll start to build a picture of your idea.

You can complete this in as little as 45 minutes and **save and return** at any time.



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## What is Design Thinking?

And how can it help you to come up with an idea?

**Design Thinking** process will help you to create solutions to solve real world problems and drive social change.

**Design thinking is a human-centred approach to problem solving.**



Here's the steps followed in the Design Thinking process:

1. Empathise

2. Define

3. Ideate

4. Prototype

5. Test



# Step 1 : Empathise

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## Who needs your help, and why?

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**1** • What's something you'd change if you could? Take inspiration from your own experiences.

• AI Living for India

• Health and Education



• Sport & Tech

• Environmental Sustainability

**2** • Who's affected by this problem? Make a list of different groups:

Now choose one group from your list. Click on the titles for examples

**Goals**

What the group wants to achieve.

**Pains**

What their frustrations or challenges are.

**Behaviours**

How the pains force the group to act.

**Needs**

What the group needs from a solution.

**3** • Focus question: Narrow it down. Describe exactly who you are solving for.



**Tip:** Statistics help build a picture of your user. For example, a large percentage of households in India do not segregate their waste at source, which contributes to increasing landfill waste, pollution, and inefficient recycling systems.





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## Step 2 : Define

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Out of every problem, there's an opportunity... let's find it !



Click on these to show how problems can become opportunities

1.

<u>Needs</u>	<u>Aspiration</u>	<u>Barriers</u>	<u>Frustration</u>	<u>Opportunity</u>

2.

Focus question : So, what opportunity is there for tech to solve the problem?

Tips:

- Define your user's point of view
- Say what they are trying to do
- Have 'tension' (what's stopping them?)
- Be new / a little surprising

Click for an  
example



## Step 3 : Ideate

Let's do some creative thinking to start solving the problem.



[Click Here](#)



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[Looking for a tip?](#)

1. Here are some [ideation techniques](#) to get you started. Remember, this is your chance to dream up something that truly makes a difference. The sky's the limit! What will YOU create?

2. How many ideas can you come up with in 5 minutes? Grab a piece of paper and write as many as you can. Here's some tech possibilities to inspire you:



Apps



AI



Social media



Smart devices



Robotics



Wearable



Voice tech recognition

3. Take a small break, then come back with fresh eyes. Review your ideas and pick the one that best solves your user's problem. Head [here for an example](#), as well as tips on how to choose just one idea. Focus question: The big moment! What is your game-changing idea?



# Step 4: Prototype

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Bring your idea to life. Build it, test it, and see how it stacks up.

What's a prototype?

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Click on the icons to see the many ways to prototype.

[Click here for a tip!](#)

1. Sketch, build or describe, it's up to you. Create a prototype and take a photo of it. If designed digitally, make sure you've saved it online so you can share the link! [Need inspiration? Head here for an example.](#)

## 2. Focus questions:

1. Is your prototype working as planned?
2. Are there any tweaks or improvements you could make?
3. And, most importantly, is it solving the problem you set out to tackle?



# Step 5 : Test Optional but recommended

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Test, collect feedback and upgrade your prototype. On repeat.

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Testing is important. It's where you find out what works... and what doesn't.

Don't stress if it isn't perfect yet. Shortlisted entries will get the chance to refine their ideas, and we'll even help you build your own prototype.

[Take a look at the Samsung testing process.](#)

1. Write three [questions](#) you'd like to use to get feedback:

- 
- 
- 

2. Feedback you gathered:

Improvements based on feedback:



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## Step 6 : Submit

# Congratulations!

You've made it to this page because you've created a great solution for something that matters - **well done!**

By completing the Design Thinking Toolkit, you can:

- Apply Design Thinking to a problem
- Feel inspired to become an innovator for the future
- Enter the Solve for Tomorrow competition by completing the application form on the [website](#)  
*(to be hyperlinked with SFT website)*





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**His innovation:**  
Real-time AI powered speech recognition device for  
individuals with dysarthria (slurred speech)

**Praneet Khetan (Team Paraspeak)**

**Solve for Tomorrow 2025 Winner from Future of  
Health, Hygiene & Wellbeing in India theme.**

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**His Innovation:**

**AI-powered wearable glasses that detect objects and provide location-based guidance for the visually impaired.**

**Tushar Shaw (Team - Percevia)**

**Solve for Tomorrow 2025 winner from AI for Safer, Smarter & Inclusive Bharat theme.**

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**Their Innovation:**

**AI powered vermicomposting unit that automates composting & reduces landfill waste.**

**Abhishek Dhanda & Prabhkirat Singh  
(Team - Prithvi Rakshak)**

**Solve for Tomorrow 2025 Winners from Environmental Sustainability via Technology theme.**

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**Their Innovation:**

**Building India's first talent pipeline for sports to bridge the opportunity gap for hidden athlete talent.**

**Aadish Abhijeet Shelke & Bhagyashri Heeralal Meena  
(Team - NextPlay AI)**

**Solve for Tomorrow 2025 Social Change through Sport & Tech: For Education & Better Futures theme.**

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**Goals example:** The goal is for households in India to manage and dispose of their waste responsibly and sustainably. People should have access to simple and convenient ways to segregate waste at home, allowing them to contribute to a cleaner environment without confusion or extra effort. This would help reduce pollution, improve recycling efficiency, and create healthier living spaces for communities.

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**Pains example:** Pains for households trying to manage waste responsibly in India could be:

- Confusion about how to correctly segregate wet, dry, and hazardous waste
- Lack of space or convenient systems for multiple waste bins at home
- Irregular or inefficient waste collection services
- Limited awareness about the environmental impact of improper disposal
- No direct incentives or motivation to maintain segregation habits
- The perception that segregation requires extra time and effort

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**Behaviours example:** The pains could cause households in India to:

- Mix all types of waste into a single bin or bag
- Rely completely on waste collectors to sort waste later
- Ignore segregation rules unless strictly enforced by housing societies
- Dispose recyclable materials along with general waste
- Prioritize convenience over environmentally responsible behavior
- Avoid making long-term sustainable habit changes

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**Needs example:** Households in India need solutions that make waste segregation easy, convenient, and part of their daily routine. They need tools or systems that provide clear guidance on waste sorting, reminders to maintain habits, and better co-ordination with waste collection services. This is an opportunity to develop innovative solutions that encourage responsible disposal, reduce environmental impact, and help communities become cleaner and more sustainable.

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**Needs example:** Households in India want simple and convenient ways to segregate waste so they can contribute to a cleaner environment without disrupting their routine.

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**Aspiration example:** To create a smart solution that guides, motivates, and supports households in adopting better waste management habits, reducing environmental impact and improving community hygiene.

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**Barriers example:** Limited access to simple, convenient, and reliable solutions that help households segregate and manage waste correctly in their daily routine.

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**Frustration example:** People feel that waste segregation is complicated and time-consuming, which discourages them from adopting sustainable habits despite understanding its importance, resulting in negative environmental impact.

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**Opportunity example:** The lack of simple, accessible tools and systems that help households segregate and manage waste correctly makes it difficult for people to adopt sustainable habits in their daily lives, thus creating a significant opportunity for innovation.

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**Insight example:** Households in India often find waste segregation confusing or inconvenient due to limited awareness, lack of space, and inconsistent collection systems, leading to improper disposal despite good intentions.

**Opportunity example:** To develop technology-driven solutions that make waste segregation simple, convenient, and motivating, encouraging responsible behavior and helping create cleaner, more sustainable communities.

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**Focus questions example:** Households in India want to manage their waste responsibly and contribute to a cleaner environment without confusion or extra effort. However, they face challenges like lack of awareness, inconvenience in segregating waste, limited space, and inconsistent waste collection systems, which lead to improper disposal habits.

Could technology offer solutions that make waste segregation simple, convenient, and engaging, enabling households to adopt sustainable practices and reduce environmental impact in their daily lives?

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**Tip:**

Don't worry about being perfect—right now, it's all about throwing out as many ideas as you can.

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Draw sketches on paper to quickly  
test ideas.

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Using basic materials like  
cardboard, foam, clay, and  
cellotape to create rough models.



Use an app to create an animation that brings the idea to life.

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Use building blocks to  
visualise concepts.

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Create a storyboard to show  
how a user would interact with  
the product or service.

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Tip:

Don't worry about your first prototype looking beautiful -  
you'll get the chance to perfect it later.

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1. What do you think this product is supposed to do?
2. Are there any features that are confusing or hard to navigate?
3. Are there any changes you'd suggest to the design?

## Ideation example

Here's how ideation could look if you choose to brainstorm.

### Problem:

Households in India want to manage and dispose of their waste responsibly without confusion or inconvenience. They seek simple, convenient, and reliable ways to segregate waste at home so they can contribute to a cleaner environment while maintaining their daily routines.

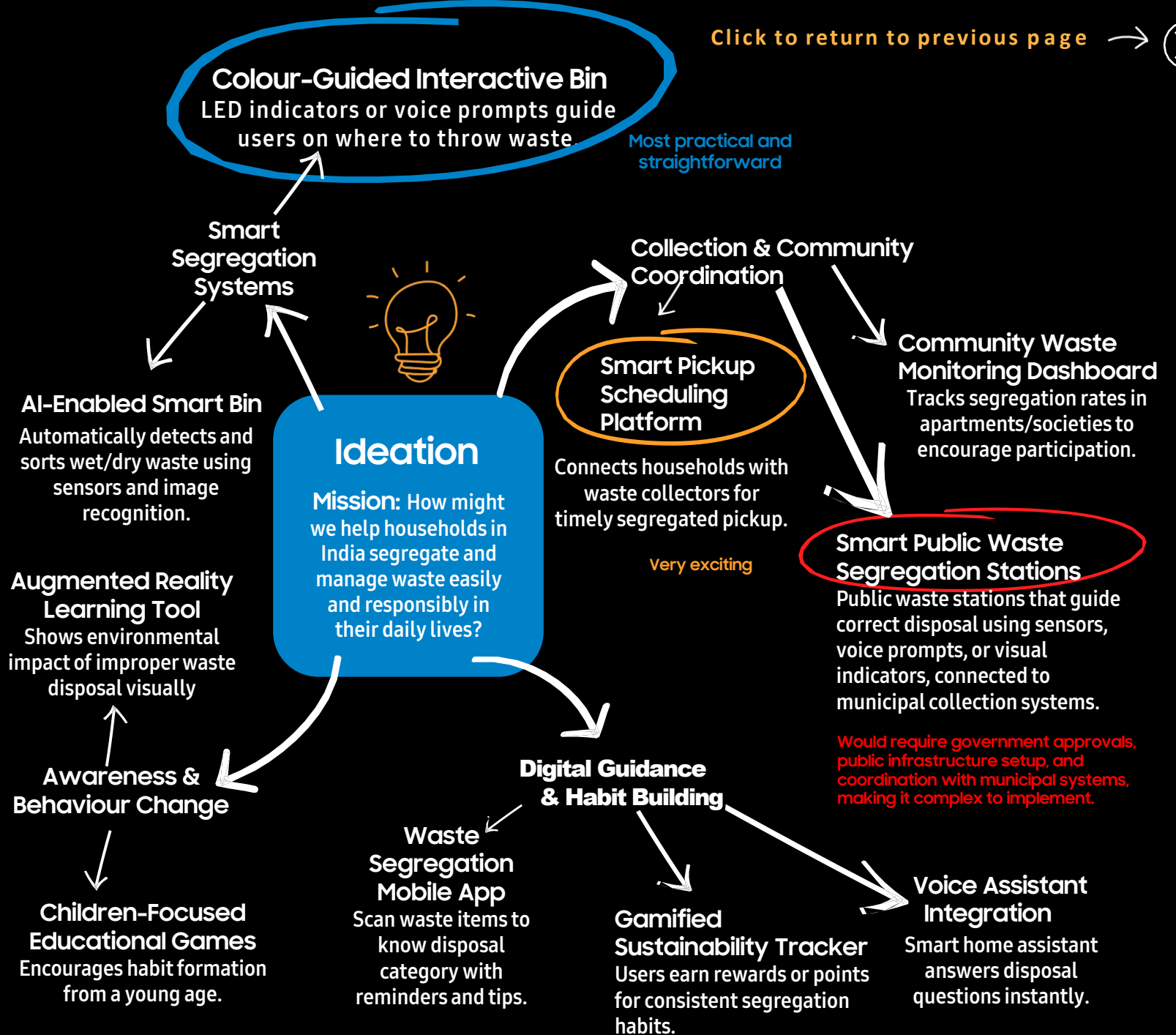
**Step 1 :**  
Come up with as many ideas as you can.

**Step 2:**  
Evaluate and colour code using these categories:

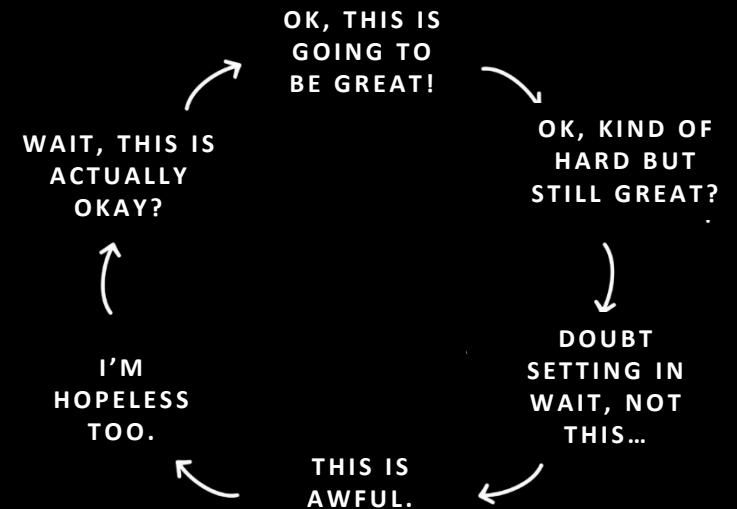
 Most exciting

 Most practical

 Most risky



**CREATIVE PROCESS**  
**(CYCLE)**



## Ideation techniques

### 1. Brainstorming

Brainstorming, whether done individually or in groups, is all about generating ideas freely without judgement – focus on producing a wide range of ideas, not on making them flawless. In brainwriting, instead of verbalizing, everyone scribbles or doodles their ideas anonymously, before discussing them as a group.

### 2. What if...? How might we...?

Ask questions related to your topic. Like, “What if tech could make homework fun?” or “How might we use wearable tech to support mental health?” These questions can help you spark new ideas and think outside the box.

### 3. Making a wish

It’s like daydreaming - imagine any solution you want, no limits. Anything is possible. Then, dial it down. Is there a way to make that wish come true? Dream big and turn wild ideas into realities.

### 4. Bottom-up Approach

Switch it up: instead of solving the problem, imagine how you could make it worse. Then, flip those ideas to uncover new solutions. This could help you see the problem from a fresh angle.

### 5. Idea Remixing

Take an existing idea and explore how you could remix or tweak it. For example, if you know of an app that already exists, think about how it might work in a different context or for a different audience, like a game for a school.

### 6. Network Mapping

Think of asking friends, family, or even online communities for their ideas or feedback on your topic. The goal? To get fresh perspectives and ideas from all kinds of people.

## Conditions for creativity

### 1. Take breaks

Get moving! Physical activity clears your mind, sparking fresh ideas.

### 2. Set a time limit

A time limit boosts urgency, driving quick, creative thinking. Try the Pomodoro Timer hack: 25 minutes work, 5-minute break.

### 3. Collaborate with others

Team up with others. Sharing and building ideas can lead to brilliance.

### 4. Doodle and Daydream

Relax and let your thoughts wander. Great ideas often come when you’re not forcing them.

## Prototyping examples

Not sure what a prototype is? Or need some ideas before making your own? Look no further - here's some examples.

### Interactive Bin - Colour-Guided Smart Segregation Bin

#### Features:

**Colour LED Guidance**– Different coloured lights for wet, dry, and hazardous waste compartments.

**Voice Prompts**– Simple audio instructions like “Please put food waste in the green section.”

**Optional Sensor Detection**– Basic sensors or camera to identify waste category (advanced prototype)

**Reminder Alerts**– Notifications when the bin is full or when segregation is incorrect.

**Mobile App Connectivity**– Tracks usage habits and provides tips for better waste management



Phase 1 prototype

### Mobile App- Smart Waste Segregation Assistant App

• **AI Image Scanning** - Users scan an item (e.g., food waste, plastic bottle), and the app identifies the correct waste category..

• **Voice Assistance**- Audio instructions for accessibility and ease of use..

• **Educational Tips**- Information about recycling, composting, and environmental impact.

• **Local Collection Information** - Displays nearby waste pickup schedules or recycling centers.

• **Multi-Language Support**- Regional languages for wider accessibility.



Phase 1 prototype (initial sketch)

Here at Samsung, a product could go through hundreds of prototypes before reaching the final product. However, it all starts with a simple sketch or model.

