EMPATHY MAP

- Empathy maps are a great way of gaining a deeper, more holistic understanding of how our users experience things.
- Use this template to help you summarize your learnings about your users' needs and pain points by stepping into their mindset after doing field research.

1 DEFINING

- Review your notes, pictures, audio, and video from your research/fieldwork and fill out each of the four quadrants.

"The bin didn't open when I tried to throw trash."

"The old bins were simpler to use."

"I don't understand what the LED lights mean."

"Why does this bin need technology? I just want to throw garbage easily."

SAYS

"Is this even working properly?"

"This technology seems unnecessary and complicated."

"I hope I don't have to touch the bin if it's dirty."

"Is my garbage even getting collected on time?"

THINKS

DOES

Gets frustrated and leaves trash next to the bin.

Tries to wave hands multiple times to activate the bin.

Complains to local authorities or ignores the problem.

Avoids using smart bins and looks for traditional ones.

FEELS

Frustrated – when the sensor doesn't work properly.

Reluctant – to switch from traditional bins.

Confused – due to unclear LED indicators.

Concerned – about hygiene and cleanliness.

2 SYNTHESISE THE USER'S NEEDS AND FORM INSIGHTS

- Identify needs based on contradictions between two attributes, such as a disconnection between what a user says and what the user does.
- You can also synthesize insights by asking yourself: "Why?" when you notice strange, tense, or surprising behavior.

NEEDS	INSIGHTS
"As a _____ (user type) I want / need to _____ (desire) so that I can _____ (result)."	"I wonder if this means that _____ (persona / character) wants _____ (action/situation) because _____ (aim, need, outcome) but _____ (restriction, obstacle, friction)."
Reliable Functionality – "As a city resident, I need the smart bin to open consistently so that I can dispose of my trash without hassle."	Technology Gap – "I wonder if this means that older citizens struggle with adopting smart bins because they are unfamiliar with sensor-based technology, but they might use them if provided with clear instructions."
Clear Indicators – "As a user, I want easy-to-understand signals (lights or sounds) so that I know when the bin is full or malfunctioning."	Trust in Automation – "I wonder if this means that users hesitate to rely on smart bins because of past experiences with malfunctions, but they would trust them more if the bins were consistently responsive."
Ease of Use – "As an elderly citizen, I need a simple and intuitive design so that I can use the smart bin without confusion."	Visual Communication – "I wonder if this means that LED indicators alone are not effective because users find them confusing, but they might respond better to a combination of colors, sounds, and simple text instructions."
Awareness & Education – "As a first-time user, I want guidance on how to use the bin so that I can feel confident in adopting this technology."	Public Perception – "I wonder if this means that people resist using smart bins because they assume traditional methods are more reliable, but they might accept them if they see improvements in functionality."
Quick Maintenance – "As a city worker, I need to be notified of sensor failures quickly so that I can fix them before bins overflow."	Maintenance Efficiency – "I wonder if this means that waste management teams struggle to address overflow issues because they don't get real-time alerts, but a better notification system could make their work more efficient."