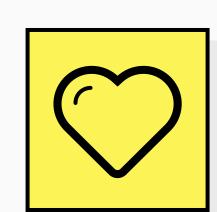
TEAM ID: PNT2022TMID05359



WHO are we empathizing with?

Who is the person we want to understand? What is the situation they are in? What is their role in the situation?

> for creating daily optimized routes for collection.

Track the location with real-time data. View fullness levels

What do they HEAR?

What are they hearing others say? What are they hearing from friends? What are they hearing from colleagues? What are they hearing second-hand?

> **Knowing the** level of dustbins knowing the specific location.

Making easier to allocate resources.

> Results in availability of valuable materials for reuse.

Smart Dustbin is an intelligent dustbin that provides you 100% hygienic solution to everyday waste management.

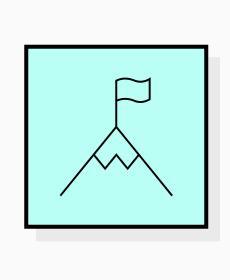
GOAL

What do they THINK and FEEL?

solve solid waste problems using sensors, intelligent monitoring systems, and mobile applications

What do they need to DO?

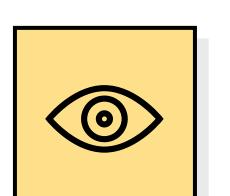
What do they need to do differently? What job(s) do they want or need to get done? What decision(s) do they need to make? How will we know they were successful?



To use the 3 Rs of waste management Reduce, Reuse, Recycle

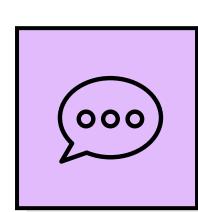
Smart Dustbin is just a normal bin where everyone can dispose waste but integration of some hardware components is done for more efficient use

Level of street cleanliness is not affected.



What do they SEE?

What do they see in the marketplace? What do they see in their immediate environment? What do they see others saying and doing? What are they watching and reading?



Effective

usage of

dustbins.

What do they SAY?

What have we heard them say? What can we magine them saying?

> **Ensure** Healthy and safety with smart dustbins.

Efficient sorting and recycling.

PAINS

What are their fears, frustrations, and anxieties?

Some waste

cannot be

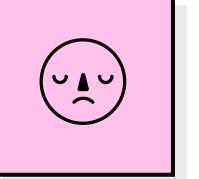
recycled.

Separation

of useful

material

from waste.



Technological

push needed

GAINS

What are their wants, needs, hopes, and dreams?

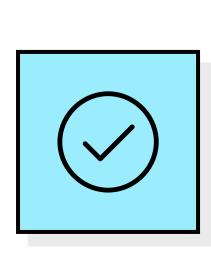
> keep our surroundings clean

Emphasizes on healthy environment.

Resulting in manpower,fuel

less

use.



What do they DO?

What do they do today? What behavior have we observed? What can we imagine them doing?

Smart waste management is about using technology and data to create a more efficient waste industry

make trash collection more efficient, costeffective and environmentally friendly