EMPATHY MAP

smart waste management system for metro cities using IOT

team ID : **PNT2022TMID16088**

What do they THINK AND FEEL?
what really counts
major preoccupations
worries & aspirations

- Thinks in reduction in overflows and landfills
- Feels reduction in collection cost
- Waste generation analysis taken to for all metrocities
- Think no missed pickups and reduced overflows

What do they HEAR?
what friends say
what boss say
what influencers say

- Knowing the fill-level of a dustbins without having to visit the specific location makes it easier to allocate resources effective
- Reduce the no of bins required- declutter and improving the street scene and using IOT make advanced in metro cities
- Encourage recycling-on-the-go by ensuring Dustbins aren't over-flowing. Residents will be encouraged to put the right thing in the right bin when they're out and about.

SMART WASTE MANAGEMENT SYSTEM IN METRO CITIES
smart waste

What do they SEE?
environment
friends
what the market offers

- 21 standard bins were replaced with 10 "Compactor smart bins:. that squash the bins to fit more in and remotely report on fill levels
- Smart Dustbin is just a normal bin where everyone can dispose waste but integration of some hardware components is done for more efficient use of it
- Level of street cleanliness were not affected

What do they SAY AND DO?
attitude in public
appearance
behavior towards others

- DISPLAY: Smart indicators on the front display panel. DEODORIZER: Foul odor elimination DURABLE & LONG LIFE: Made with high quality materials for a long durable life
- OPERATION: Automatic sensor based operation with zero manual intervention HYGIENIC: Hygienic disposal with automatic and touch-less waste disposal DISPLAY: Smart indicators on the front display panel
- ENSURE HEALTH AND SAFETY WITH SMART DUSTBINS Smart Dustbin is an intelligent dustbin that provides you 100% hygienic solution to everyday waste management.
- waste collection can use the smart waste management software to optimize their collection routes

PAIN
fears
frustrations
obstacles

- Misunderstanding of the operations of smart sensors
- Non-optimized truck routes
- Non-uniform waste distribution of waste in bins
- Shortfall of public knowledge and awareness
- It's difficult to link systems from different vendors
- The systems can be costly initially because for more testing required

GAIN
"wants" / needs
measures of success
obstacles

- It reduces infrastructure, operating and maintenance costs by upto 30%.
- Optimized Routes are easy to choose Data analytics
- Eco-Friendly and improve efficiency
- It keeps our surroundings clean and green and free from bad odor of wastes, emphasizes on healthy environment and keep cities more beautiful
- Applying smart waste management process to the city optimizes management, resources and costs which makes it a "smart city"
- Transparency and Sustainability