Empathy Map



smart waste management system for metro cities using IOT

**Team ID: PNT2022TMID25602**

ID

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

SMART WASTE MANAGEMENT SYSTEM IN METRO CITIES

Level of street cleanliness were not affected

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

Reduce the no of bins required- declutter and improving the street scene and using IOT make advanced in metro cities

Knowing the fill-level of a dustbins without having to visit the specific location makes it easier to allocate resources effective

21 standard bins were replaced with 10 "Compactor smart bins:. that squash the bins to fit more in and remotely report on fill levels

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**

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

Misunderstanding of the operations of smart sensors

Non-optimized truck routes

It reduces infrastructure, operating and maintenance costs by upto 30%.

Optimized Routes are easy to choose Data analytics

# The systems can be costly initially because for

more testing

Transparency and Sustainability

Applying smart waste management process to the city optimizes management, resources and costs which makes it a "smart city"

It keeps our surroundings clean and green and free from bad odor of wastes, emphasizes on healthy environment and keep cities more beautiful

Eco-Friendly and improve efficiency

It’s difficult to link systems from different vendors

Shortfall of public knowledge and awareness

Non-uniform waste distribution of waste in bins

required