Smart waste management system

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STEP 1

Problem Solving Cards

-Basic question

#Problem Statement

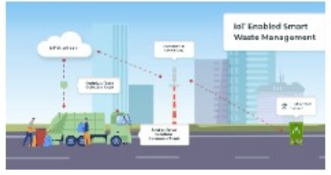
1. *What's most valuable to the customer?*
2. *What are we the best at?*
3. *Where are we looking to improve?*

STEP 2

Framing Statements

Smart waste management system framing

How can we use our Optimization skills to Increase the customers value of Saving Time in order to improve the waste management?



The biggest issue with waste management in underdeveloped nations starts right at the beginning of the process. Waste and garbage wind up in the streets and adjacent areas because there are insufficient measures in place for their collection and disposal.
According to a Google study report, garbage creation peaked in 2010 at about 20,000 tonnes per day, and by 2025, it's predicted to reach at least 47,000 tonnes per day.
Around 30% of waste ends up on the highways and in public places due to inefficient collection and disposal procedures, making it nearly difficult to handle this quantity of waste using current methods.
Additionally, as there is no organised system for handling and recycling the collected trash, the majority of it ends up in landfills and river water, further polluting the environment.
The social and economic infrastructure of the nation itself is the main barrier to deploying smart waste management systems based on IoT.
The major issue in the initial stage of this system is correct disposal and collecting.
Additionally, it's critical to inspire and persuade individuals to use proper garbage disposal techniques.

STEP 3

Ideas

Problem Solution

Example ideas:

Ai-based smart waste bin, designed for public places, enabling them to Monitor and Manage

Reduce the number of bins required & DE-cluttering and improving the street scene

We have identified the potential areas for development after a number of previous projects on waste management and teaching people how to dispose of waste properly failed to produce noticeable effects. We have created a procedure that ensures proper disposal and effective waste collection in order to address this issue.
The procedures we created include new methods by employing Decreasing Time Algorithms (DTA) to monitor garbage generation and collection of the garbage's, as well as inventive effort to encourage people to dump in designated areas or containers.