

The Urban Waste Challenge: Moving Beyond Static Management

Optimizing collection through IoT and Smart Technology.

THE GLOBAL SCALE

- **3.40 Billion Tonnes:** Projected global waste by 2050 (World Bank).
- **Static Routing:** Current trucks follow fixed paths regardless of bin levels.
- **30% Inefficiency:** Operational costs lost to "empty bin" collections.

THE “WHY”

- **Environmental:** Unnecessary fuel consumption and higher carbon footprints.
- **Sanitary:** Overflowing bins lead to odors and vector-borne diseases.
- **Administrative:** Lack of real-time data for holiday/event spikes.

THE SOLUTION

SENSE

Ultrasonic sensors monitor bin levels.



TRANSMIT

Real-time data sent to the Cloud.



OPTIMIZE

Algorithm calculates Dynamic Routes.



ANALYZE

Trucks collect only full bins, saving fuel and time.

OUTCOME:

**Optimized
Logistics for a
Cleaner
Tomorrow.**

