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CERTIFICATIONS































Intelligent Waste Collection Solution

Dramatically reduces waste collection costs by up to 80%



1 CleanCUBE

Solar-powered waste compacting bin.
Senses bin fill-level and sends real-time data to CleanCityNetworks.

2 CleanFLEX

Wireless bin fill-level sensor.

Senses bin fill-level and sends real-time data to CleanCityNetworks.

3 CleanCityNetworks

Real-time monitoring and data management platform. Provides optimization of collection routes.

4 Smart Collection Planning

Collections require less trucks, fuel, and time, reducing operational costs by up to 80%.

5 Greener Environment

Eliminate overflowing bins and reduces harmful emissions, resulting in cleaner cities.

CleanCUBE

Solar-powered waste compacting bin



Product Specification

Model	Dimensions (L×W×H)	Weight	Compaction trash	Uncompacted trash
100L*	$610 \times 610 \times 1167$ mm $(24 \times 24 \times 45.9$ in)	140kg (330.7lbs)	100L (28gal)	500L (132gal)
120L	$624 \times 762 \times 1440$ mm (24.6 × 30 × 56.7in)	155kg (374.8lbs)	120L (32gal)	600L (159gal)
240L	740 × 840 × 1536mm (29.1 × 33 × 60.5in)	190kg (427.7lbs)	240L (64gal)	1200L (317gal)

*120L / 32gal customized inner bin available

- 1. 100% powered by solar energy
- · Solar panel up to 55W
- 2. Up to 8 times more waste than traditional bins
- · Compaction force up to 700 kgf (0.77tf)
- 3. Hand detection safety sensor & Fire detection sensor
- 4. Wheelie bin compatible
- 5. Backlit or video ad panel
- 6. Wifi hotspot
- 7. Wireless data transmission
- 8. GPS location tracking



CleanFLEX

Wireless ultrasonic fill-level sensor





- 1. Attachable to any type of bin or container
- 2. Accurate sensing of both solid materials and liquids
- · Measuring technology: Ultrasonic sensor
- · Measuring range: 2~400cm (0.7~157 in)
- 3. Wireless data transmission
- 4. GPS location tracking
- 5. External antenna available
- 6. Able to install on either the sides or the top of a container

The CleanFLEX is designed to point at different angles, which allows for easier installation!

100°





Basic Specifications

• Power 3.67V high performance lithium battery

• Size $80 \text{mm} \times 85 \text{mm} \times 52 \text{mm} (3.15 \text{ in.} \times 3.35 \text{ in.} \times 2.05 \text{ in.})$

· Net weight 300g (0.66 lbs.)

· Battery life Up to 5 yrs (Replaceable)



CleanCityNetworks

Real-time monitoring and data analytics platform







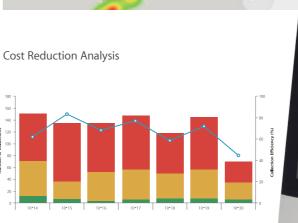


1. Real-time monitoring of fill-level and bin status

- · Sends notifications when bins are full and require collection
- 2. Generates schedules using predictive algorithms
- · Users know when bins will become full ahead of time
- 3. Route optimization for each collection
- · Calculates the shortest routes for each unique collection
- 4. Data analytics reports
- · Provides insight on waste generation, collection performance, and more
- 5. Customized cost reduction planning
- · Recommends optimal bin allocation and collection schedules

Map-based Insight





| State | Stat

Fill-level Forecasting

Product Benefits

Providing value across the supply chain

Management

- · Cost savings
- · Data-based smart planning
- · Transparent operations
- · Detailed reporting & statistics
- · Granular control and insights

Operator

- · Cost savings
- · Lower maintenance
- · Increased fuel efficiency
- · Decreased labor costs
- · Higher fleet utilization

End Client

- · Cost savings
- · No waste overflow
- · Aesthetic & hygenic improvement
- · Higher quality of service
- · Better transparency
- · Insights into waste generation

Possible Installation Sites

Complementary solutions to meet different needs



Ecube Labs' Global Presence

Installed in over 70 cities. Throughout 60 countries.

