SMART-DBIN PRODUCT DESCRIPTION



About Us:

4MirrorTech Innovatives Pvt. Ltd., Founded in May 2016 is IoT based Product Company working currently in field of smart healthcare and cleanliness. The company is founded by AnkurJaiswaland PushkarBhagwathaving considerable industry experience and prolong freelancing experience. Company is eager to contribute to "Make in India" and "Swatch Bharat".

About Smart-DBin:

We collaborated with IIITM, Gwalior and started working with them on the product in November 2016, the product was developed by March 2017 and then it was on testing in IIITM itself for next 2 months and by May 2017 we had the final tested product. Now we are using the product in various sectors and already started to market it in the digital media.

It sense the dustbin garbage level and shows the garbage level of every dustbin in website using cloud servers and also sends data/SMS to mobile. It can be installed on any existing dustbin or in any new dustbin in few minutes. We have covered different sizes of dustbins so that our device can be installed in any dustbin.Smart-DBin also sends SMS or notification to the person responsible for cleaning the dustbins whenever dustbin level rises above a certain percentage.



Device Description:



Device dimension: Height: 2.5 Cm Length: 8.0 Cm Width: 5.0 Cm Device Weight: 170 gm.approx.

There will be a clamp attached to the device. The clamp is attached to the circuit by a rivet. Device is placed under the steel part of the dustbin cover. As the device is protected by steel part from above hence it is protected from outside damages and cannot be visible. There will be only two holes to the steel cover of the dustbin so that, the device can be screwed to the dustbin cover. We also have **applied for the patent of SmartDBin device**.

Device contains abattery is placed with the SmartDBin. When needed battery can be removed and re-attached to the device. The design is slick and sturdy. While removing garbage bag from the dustbin the cleaner should just follow the usual steps.

Communication Process:

The device that is attached to the dustbin is called node. The nodes are connected to the dustbins. Nodes sends data to the Coordinator device. The Coordinator device acts as the middleware in the communication system. Coordinator as the name suggest receives data from the nodes and sends data to the master device. The master device receives data from the Coordinators and sends it to the cloud server using Internet. The Internet connection is only required to the Master devices. The system is designed to achieve ultra low power and very long range in order to avoid the necessity of extra internet routers. The Data communication is highly encrypted and highly secure as result.

Specifications:

- 1. Sturdy Aluminum cover
- 2. Ultra Low power consumption.
- 3. Upto one year battery backup.
- 4. Issues of Garbage Bag solved.
- 5. No necessity of Wi-Fi in every device.
- 6. Battery Low Status SMS and indication on device.
- 7. Long range communication
- 8. Easy to integrate, plug and play solution.

Features of Smart-DBin:

1. Wi-Fi Based Plug and Play Solution	12. Employee efficiency Tracking
2. Web Based smart garbage management	13. App based 2 way communication
system	system
3. Battery based power supply	14. Easley integrable with any existing
4. Long Lasting battery life up to 1 year	15. status indication
5. Employee Tracking	16.Irresponsible Employee Notification
	to higher authority
6. Highly Secure Data transmission	17.Downloadable Report Management
7. Easy to change Wi-Fi Password	18.Report sharing management
8. Easy device upgradation with changing existing system	19.Secured login process for web interface
9. Complete analysis of dustbin	20. Customizable to add or remove
	dustbins anytime
10.Highly secured cloud network	21. Highly Secure Data transmission
11.Predication about dustbin i.e. time to feel &	22.Automatic issue Indication to
cleaning rate	manager
12.Dry Battery no need of Recharge	23.Device weight is less than 200 Gram
13.No Need of Internet in all device create local communication channel using radio (2.4Ghz)	25. Multi level notification

Layout Design:



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