WasteConnect

INNOVATIVE MINDS

Smart Bin

- **Solar Panel** (To Charge Battery)
- **LED** (To indicate garbage level)
- **NodeMCU or Arduino** (Microcontroller)
- **IR Sensor** (To detect level of garbage)
- **WIFI Module** (To transmit real-time data to cloud)
- **Air Quality Sensors** (To collect Air Quality Measurements)
- **Compressor** (To compress waste)

Cloud Server with Database

node + express — MySQL
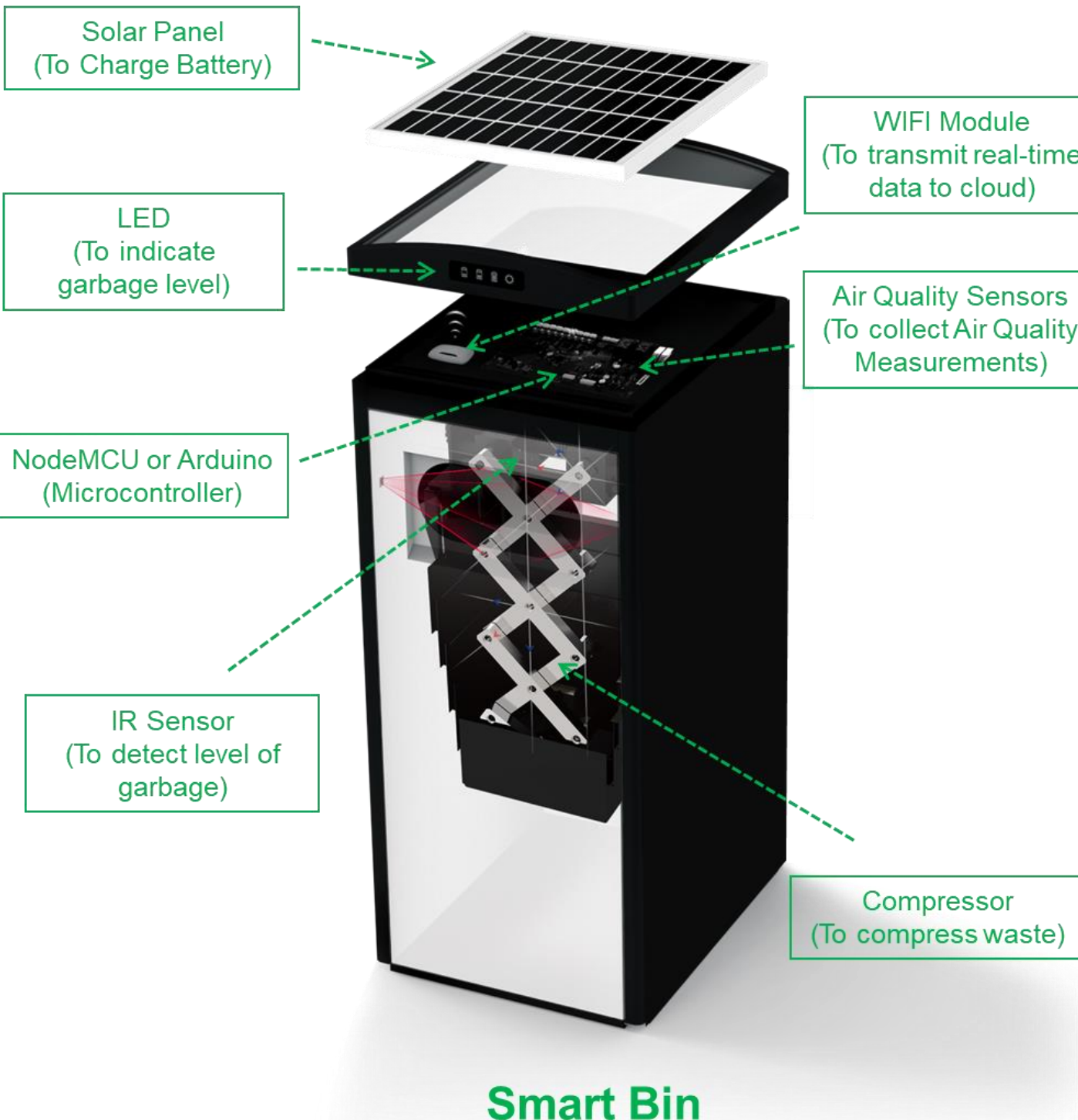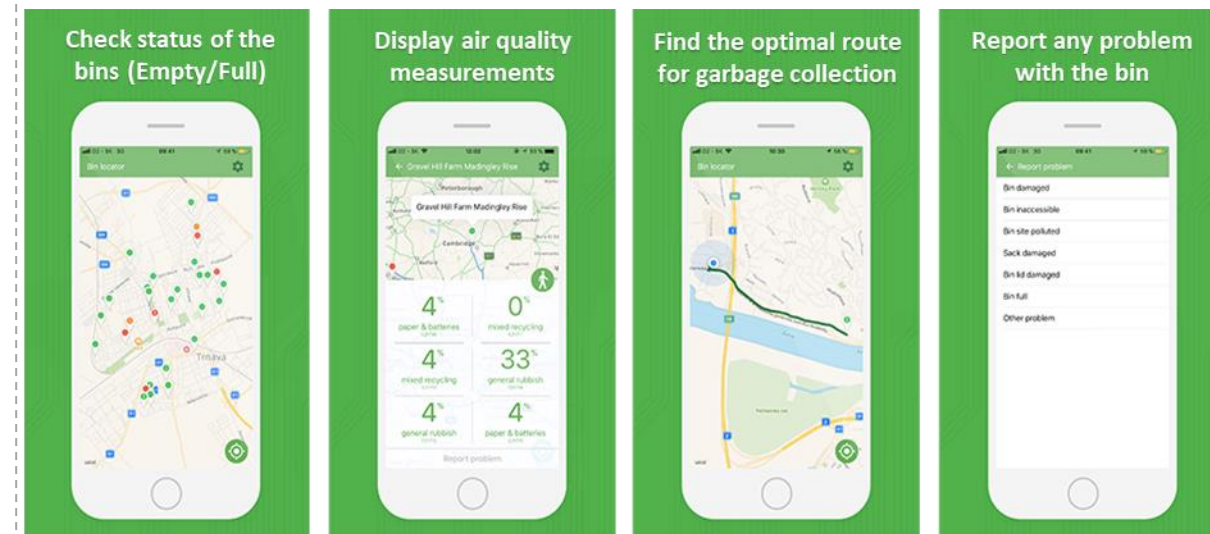
- Server will collect real-time data from all smart bins and their waste levels.
- Store it in the database
- Provide data to WasteConnect Application.

WasteConnect App

Flutter

- **Check status of the bins (Empty/Full)**
- **Display air quality measurements**
- **Find the optimal route for garbage collection**
- **Report any problem with the bin**

- WasteConnect app will provide the optimum route that saves time and fuel, which can be used by the municipal workers to collect waste.more efficiently.
- Citizens can use this app to locate the nearest smart bin to throw waste.
- Citizens can also use this app to raise any complaint regarding improper waste management. This will be helpful for the workers to track and make the city cleaner