

**Project design phase-1**  
**Proposed solution**

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|---------------|--|
| Date          | 20-SEP 2022  |
| Team id       | PNT2022TMID46746   |
| Project name  | Project-smart waste management system for metropolitan cities. |
| Maximum marks | 2 marks  |

**Proposed solution:**

| S.NO | PARAMETER                                 | DESCRIPTION   |
|------|---|---|
| 1.   | Problem statement (problem to be solved). | 1.To manage the waste in metropolitan cities using smart technique.   |
| 2.   | Idea/ solution description.               | 1.To implement a smart bin built on a microcontroller based platform ArduinoUnoboard.<br>2. which is interfaced with GSM modemand Ultrasonic sensor ,which can gives the status of the waste present in the dustbin to the municipal authority.   |
| 3.   | Novelty/uniqueness.                       | 1.Immediate Transferring of data about each bin to the control room.<br>2.Accurate indication.<br>3.Weight of the trashes are indicated.  |
| 4.   | Social impact/ customer satisfaction.     | 1.It reduces the overflow of trashes in the bin.<br>2.It Reduces the pollution.<br>3.It provides vibrant environment<br>4.Reduces the Breeding of disease vectors (mosquito, Housefly,cockroach ,microbes, Etc.,)<br>5. Easy collection and discharging of waste by the concern authority at regular intervals.                                     |
| 5.   | Business model(revenue model).            | 1.The Waste are put in the bin by the public<br>2.The bins sense the level of trash.<br>3.It provides the indication of each stage of the waste dumped by using the LED.<br>4.Once the trash completely fills the bin<br>5.Information is provided to the control room.<br>6.The trash is collected and the bin will be emptied by the corporation. |
| 6.   | Scalability of the solution.              | 1.Well monitoring system with accurate indication.<br>2. Reduce the waste efficiently.<br>3.Easy maintenance.<br>4.Reasonable cost.   |