

Incentivized Tech Bin

Work Process:

- The tech bin is developed with AI which can separate the wastes using image processing and stones can be detected and warn the user,not to throw the stone again.
- When the waste is thrown into the bin,camera in the bin will capture the image of the user using **OpenCV** and **edge AI**(**biometric,keypad can't be used since it is difficult for children and uneducated people**).
- If they want to add there social media account(Optional),they can add and their activity will be displayed in the official Tech bin page by tagging them.
- Using android game development platform **Unity**,a gamified display is displayed in the touch screen which will display the **frequency** and **weight** of the wastes thrown by the user up-to-date with a **graphical games**.
- If weight is more than 1kg,it will ask for **QR code** or **Tokens**(consists of QRcode) which can be scanned later in the web application.If none of the option is selected,Tokens will be printed and given to the user especially for **children** and **uneducated people**.
- This Bins are connected in a **centralized server** by **LoRa**(Long Range) so that we can use any bins which will store our usage anywhere.

Weight is detected and warns if any stones detected.

Image is captured and processed with OpenCV and edge AI(data is uploaded to apache tomcat server)

Social media account can be added in touch screen to tag their account in official Tech Bin page.(Optional)

Gamified portal(display user's frequency of usage and weight of waste along with graphics)

All are connected to centralized server(collects and store data from all bins)

By default,Tokens are given(for children and uneducated people)

Displays"Tokens or QR code"
(QR code can be scanned using mobile application or printed tokens are given which has QR code)

