




Classi-waste

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Why 'Scavengers'? XD

Scavengers help keep the environment clean, so does our product!

Problems



Trash disposals and other waste management systems are getting overwhelmed and overflowing into living areas due to inefficient management and high inflow.



Insufficient data on garbage output per person makes it hard to mitigate unwanted waste and classify different types of waste. Also reduces likelihood of recycling.

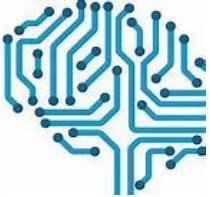


Expensive tech and infrastructure is used to address the problem, hence reducing overall action.

Solution



Using AI, IoT and interactive user interface to promote the reduce, reuse, recycle method to improving sustainability, while at the same time increasing the sense of community by connecting people.



Using state of the art YOLO v5 machine vision tech to classify trash and provide analytics, hence attacking the problem at the root.



Efficiently and effectively used technology helps cut costs by removing inefficient tech usage and by being more efficient

Physical working

- An electronic device fixed on the trash can will allow users to operate the app
- Machine vision model (the brain of our product) will determine which bin the trash moves to
- Robotic arms which move the waste to their respective bins

How does it work?

The app captures a picture of the trash

The ML model determines the trash type and categorizes it into one of the following-

- Plastic
- Food
- E-waste
- Cigarettes

How does it work?

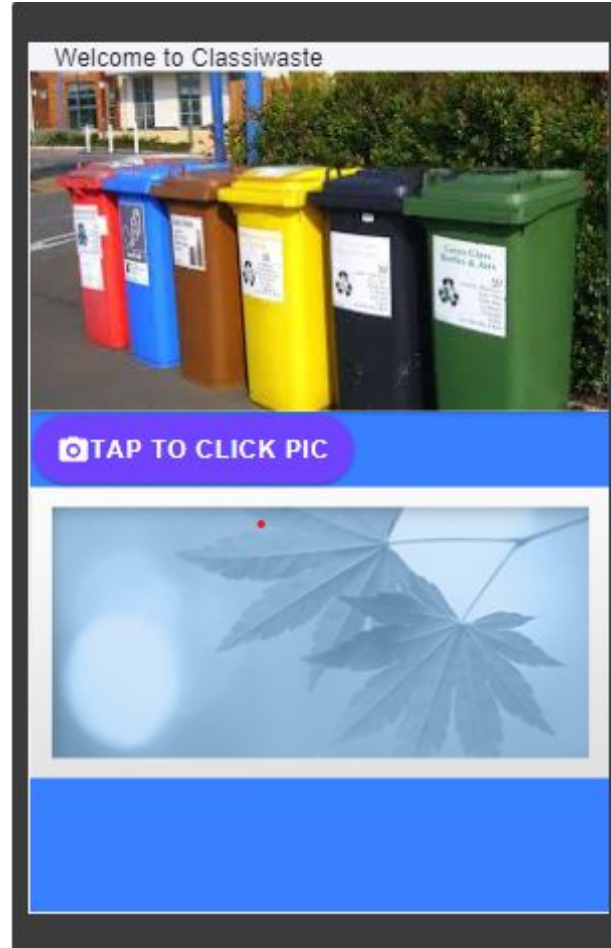
The output of the ML model (type and units of waste) is displayed on the app screen

Depending on the type of trash, the app navigates through a customized series of pages. These may include-

- further questions about waste disposed
- facts about the waste disposed
- option for donation (in case of working, outdated electronic gadgets)
- social message (to not waste food or ill-effects of smoking)

Classiwaste App Pages:

Home Page:



Waste Details Page:

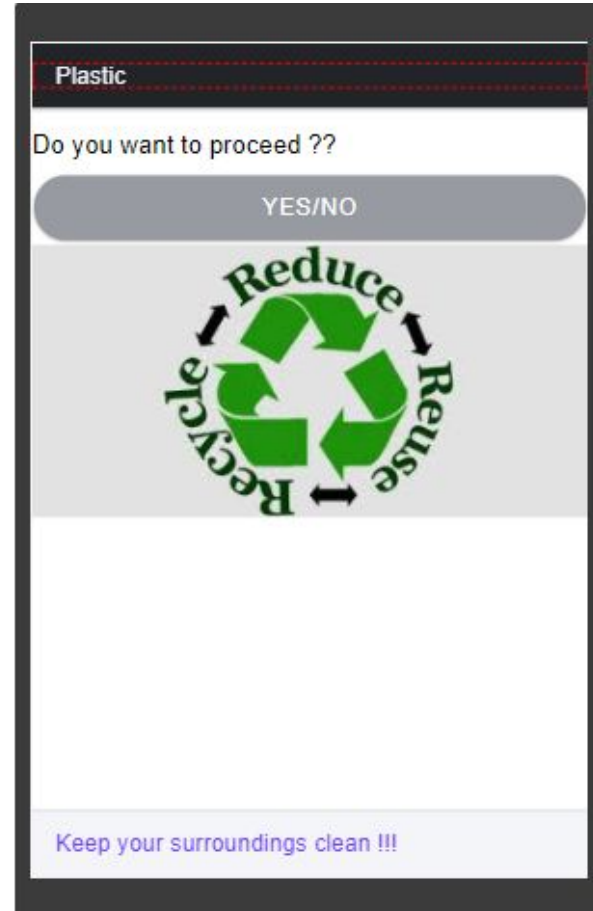
Waste details

Type of waste:

Units of waste:

NEXT

Cigarettes and Plastic Pages:




E- Waste Page:

E-Waste

What is your reason for disposal?

Outdated

Device not working




Keep your surroundings clean!

My gadgets are outdated...

Would you like to donate it to the needy instead?

Try donating your stuff next time !!

NEXT



Keep your surroundings clean!


Food Waste Page:

Food Waste

Why are you throwing the Food?

I'M TOO FULL


FOOD HAS GONE BAD



Keep your surroundings clean!

I'm too Full

Many people out there are waiting in hunger for that food. Be careful next time !!



→ NEXT

Keep your surroundings clean!

Final page:



Classiwaste AI in action



Implementation ideas

Establish this system in public places like parks, footpaths etc.

This will kindle excitement among adults and children alike to try out new tech and at the same time keep the environment clean.

A larger and diverse audience would help further improvement in future.

Thank you!