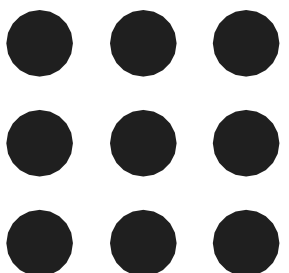


Smart Garbage collector for Smart City

V.K.Shelvaaathithyan
K.C.Shri Vishnu Vardhan



Empathy



Design Thinking

Survey Questionnaire

Survey

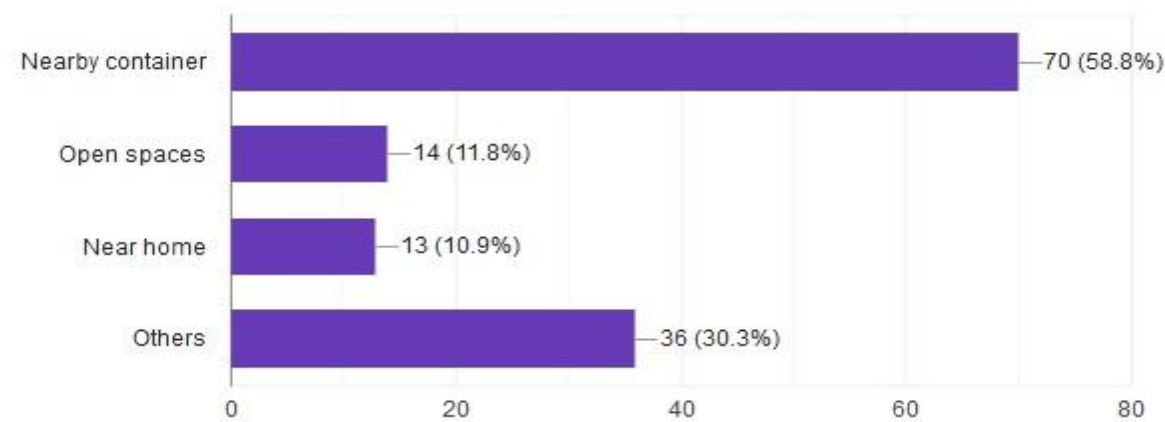
Empathy



QUESTIONS RESPONSES 119

Where do you dispose your generated waste?

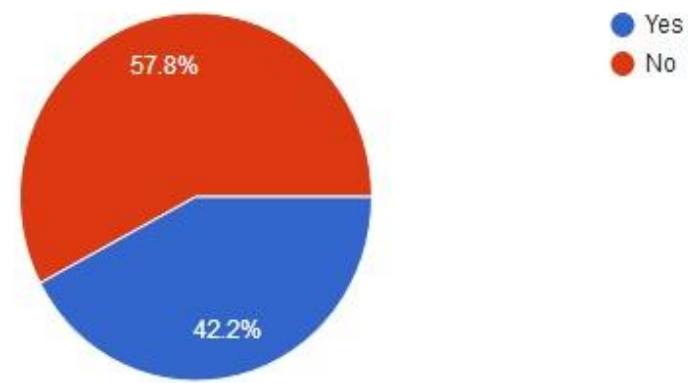
119 responses



QUESTIONS RESPONSES 119

Are you satisfied with your current waste collection service?

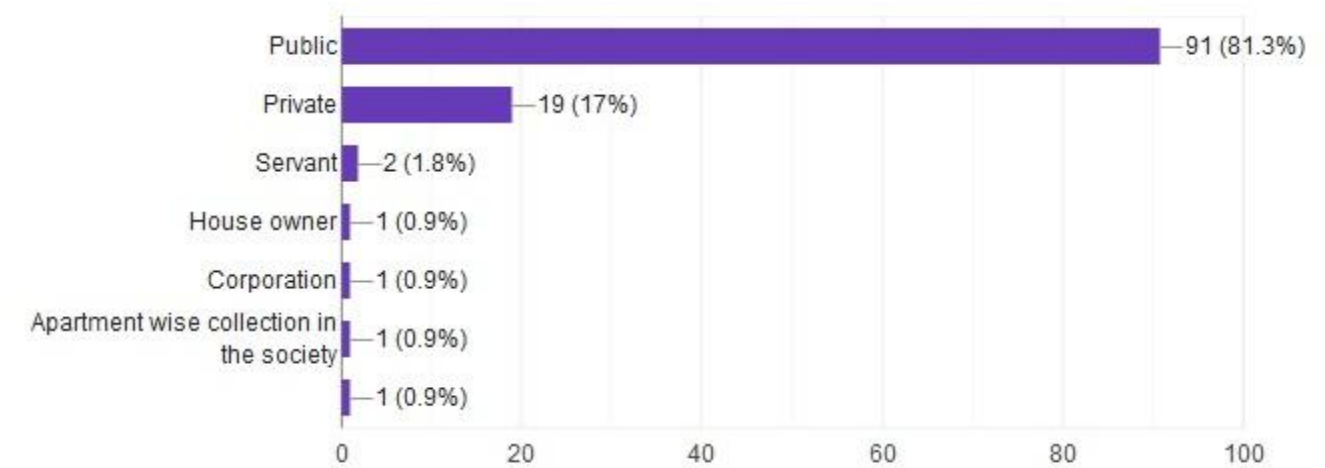
116 responses



QUESTIONS RESPONSES 119

Which collection service do you use?

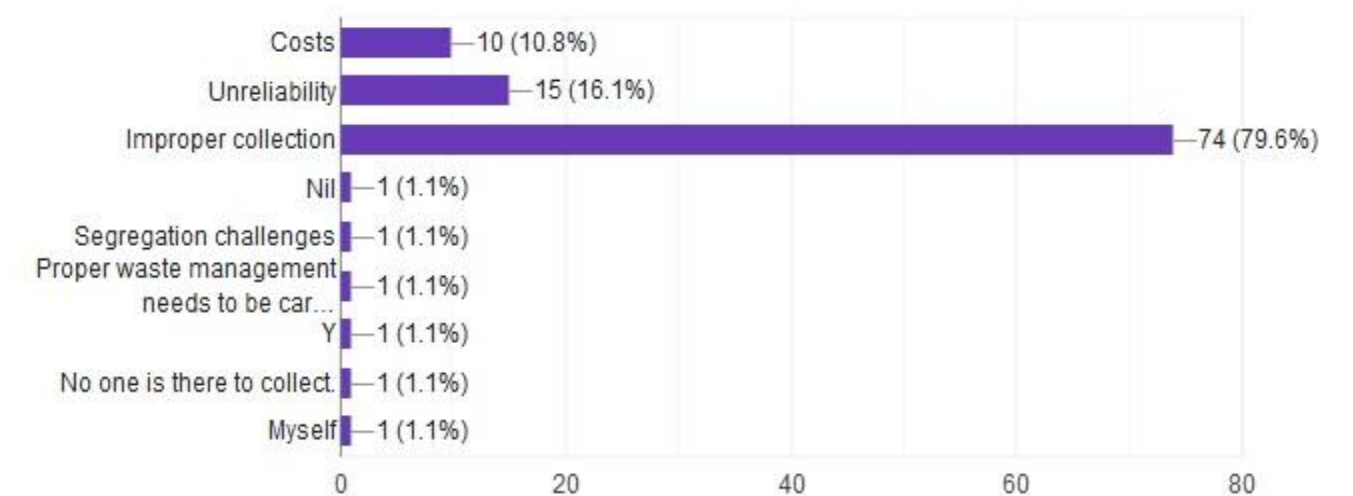
112 responses



QUESTIONS RESPONSES 119

What is the main reason for your level of dissatisfaction?

93 responses



Empathy

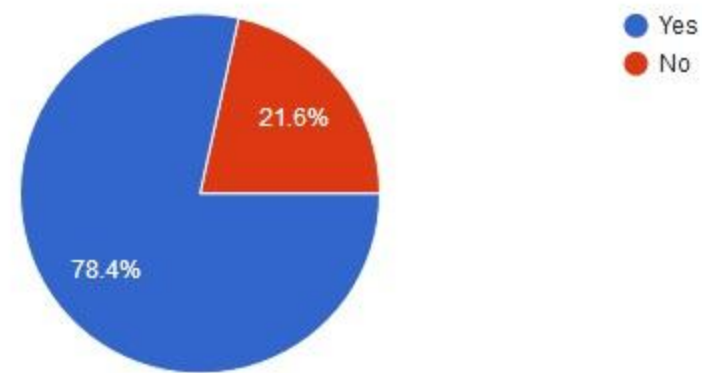
QUESTIONS

RESPONSES

119

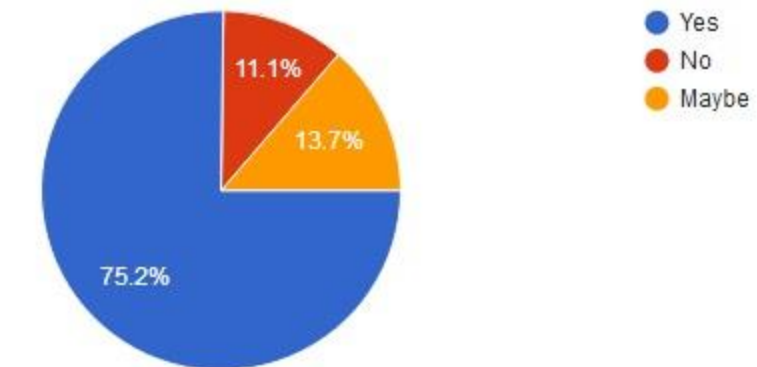
Are you concerned about the disposal methods of the service provider?

116 responses



In your opinion is waste management an environmental problem?

117 responses



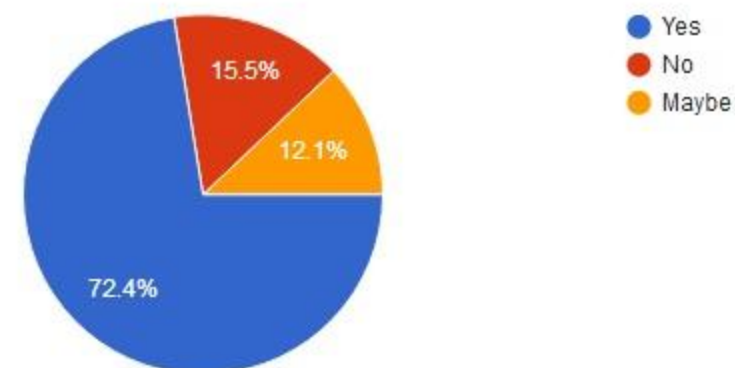
QUESTIONS

RESPONSES

119

Do you consider that environmental degradation has negative effect on your family?

116 responses

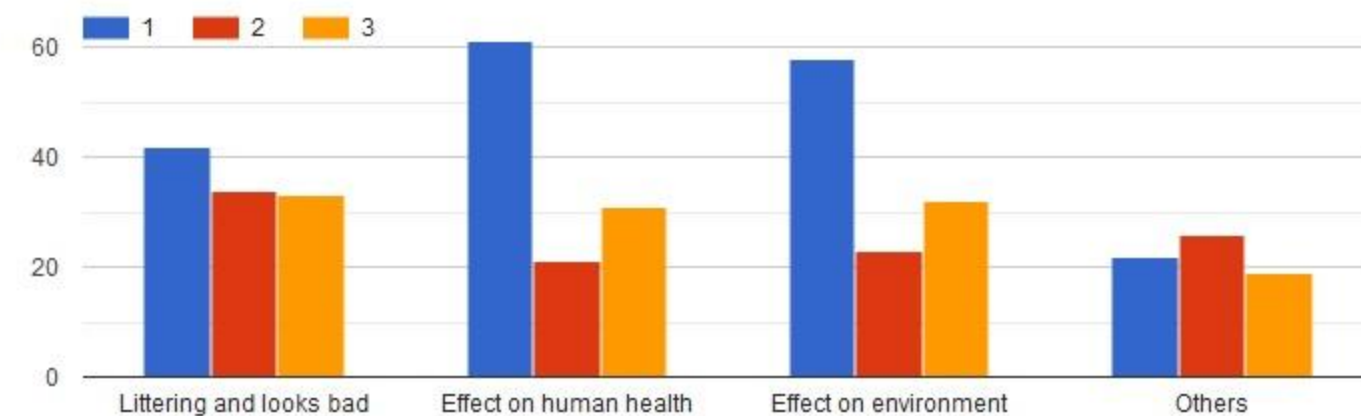


QUESTIONS

RESPONSES

119

In your opinion which of these is a priority concern about waste in your area? Mention your priority level.



Empathy

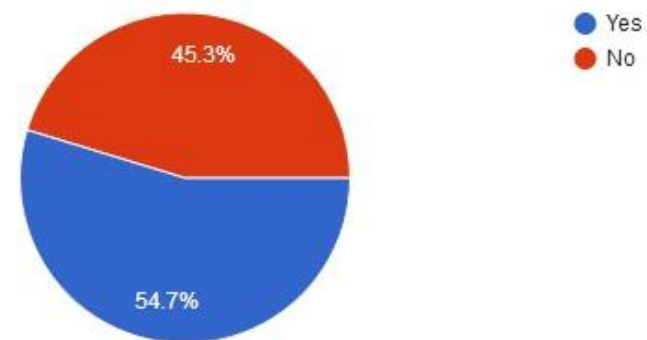
QUESTIONS

RESPONSES

119

Do you separate different type of waste at your home?

117 responses



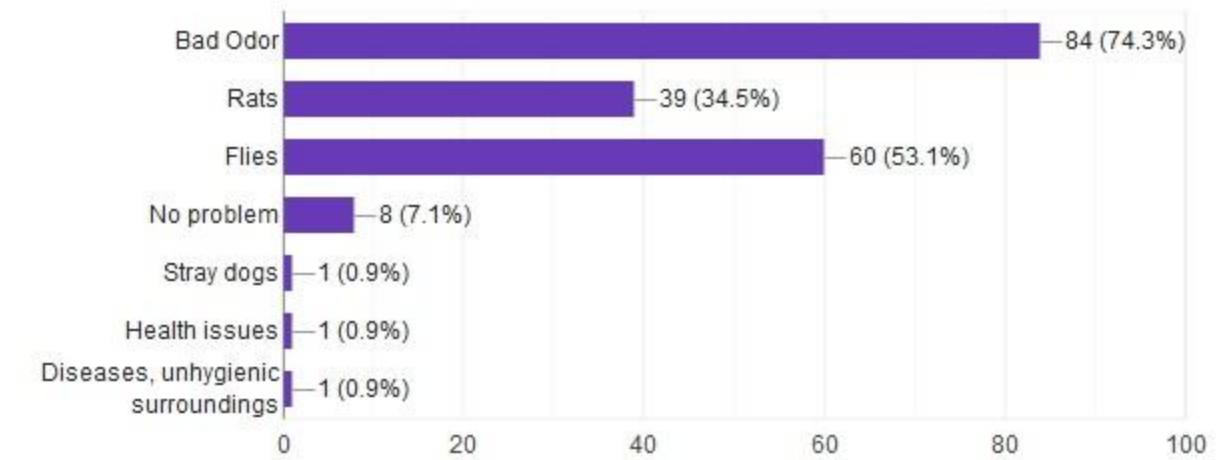
QUESTIONS

RESPONSES

119

Please identify some of the main problems with the current solid waste management system?

113 responses



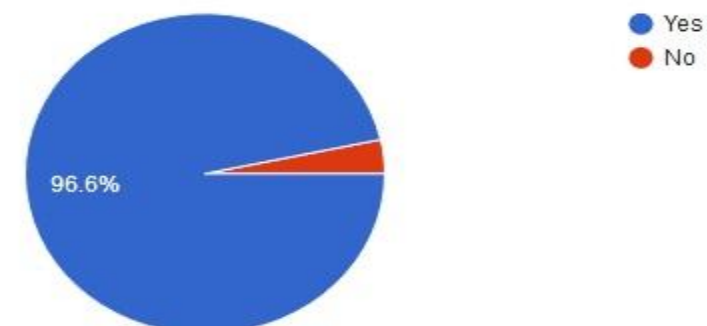
QUESTIONS

RESPONSES

119

Do you think new technology need for waste management?

117 responses



Define



Improper Collection of wastes

- No specific time to collect the waste from home
- Less man power
- Disposal of garbage from bin

Environmental degradation

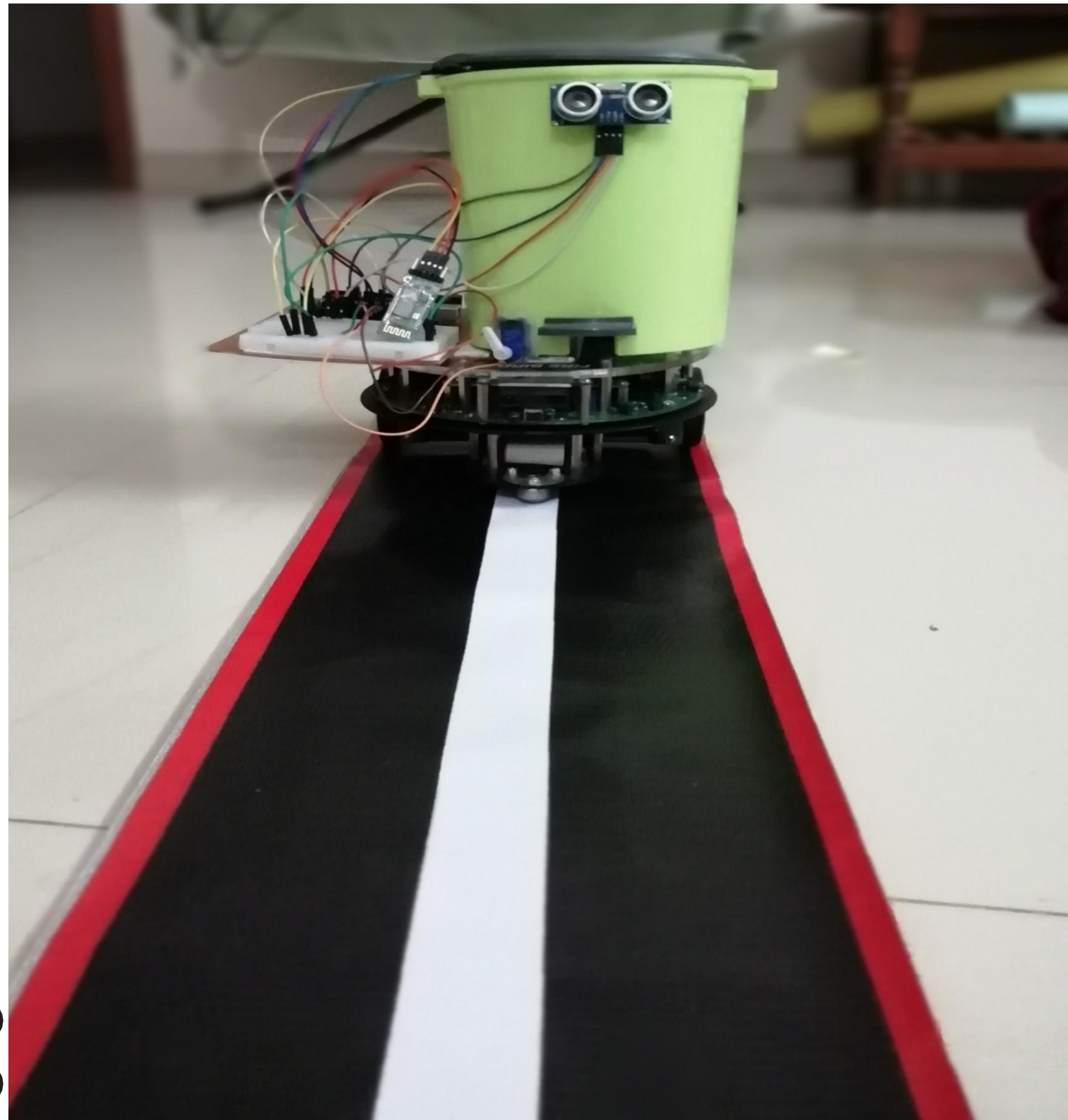
- Littering and Looks bad
- Effect on human health
- Effect on environment

Need New Technology

Ideate

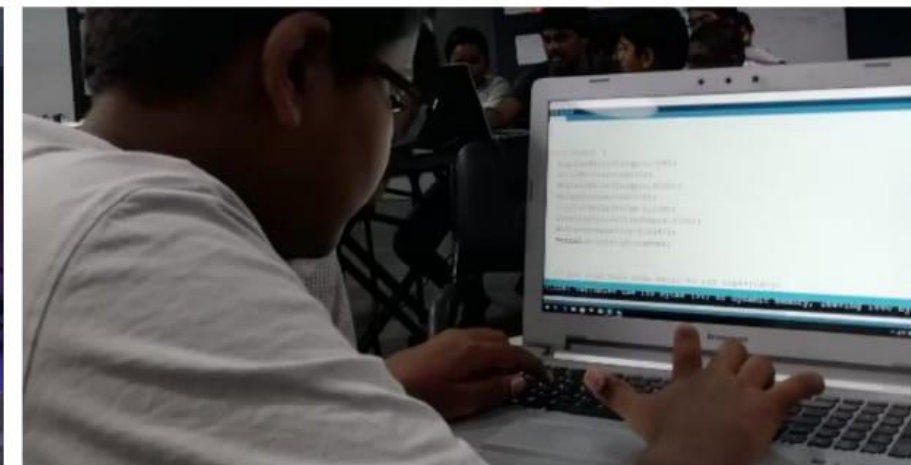
Problems	Reason	Idea
Improper Collection of wastes	No specific time to collect the waste from home	Line Tracking Sensor
	Less man power	
	Disposal of garbage from bin	Level Indicator, SMS,GPS
Environmental degradation	Littering and Looks bad	
	Effect on environment	
	Effect on human health	Automatic opener in Bin

Prototype



Components

- **Arduino Uno**
- **Ultrasonic sensor**
- **Line tracking sensor**
- **Bluetooth Module**
- **GPS Module**
- **Dust Bin**



Thank you