

SMART AUTOMATIC DUSTBINS

T. John Institute of Technology and 2nd Sem

PROBLEM STATEMENT

Self-segregation of waste is mandatory, where the people are dumping the wastes without segregating them separately.

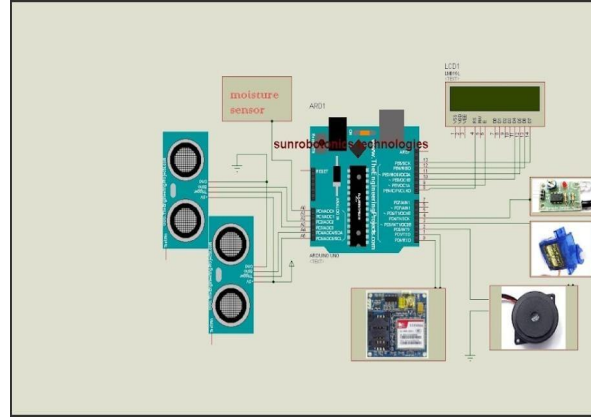
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INTRODUCTION

In today's world, waste management has become a critical challenge due to the increasing amount of waste generated by human activities. The improper disposal and mixing of different types of waste can lead to environmental pollution, health hazards, and resource wastage. Traditional waste segregation methods often rely on manual sorting, which is time-consuming, labour-intensive, and prone to errors. To address these issues, we have designed a revolutionary solution - an automatic waste segregation system that utilises advanced technology to efficiently categorise waste into dry and wet components.

Our innovative product leverages cutting-edge components such as the ARDUINO UNO microcontroller, ULTRASONIC SENSOR, LCD 16X2 display, BUZZER, and WIFI esp-01 module. By integrating these components, we have successfully developed a smart dustbin that not only streamlines waste management processes but also offers a cost-effective and sustainable solution.





IDEA GENERATION

Considering the hazards caused by the normal or the common ways of waste segregation an automatic waste segregation is designed to overcome this.

We designed a product which can segregate waste as dry and wet waste.

In our product we have used, ARDUINO UNO, ULTRASONIC SENSOR LCD 16X2, BUZZER, WIFI esp-01, ARDUINO CABLE

By using these components it is easy to produce a smart dustbin at a low cost.

List of tools / Softwares used:

- 1.ARDUIINO IDE
 - 2.ARDUIINO UNO
 - 3.ULTRASONIC SENSORS
 - 4.WIFI esp-01
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