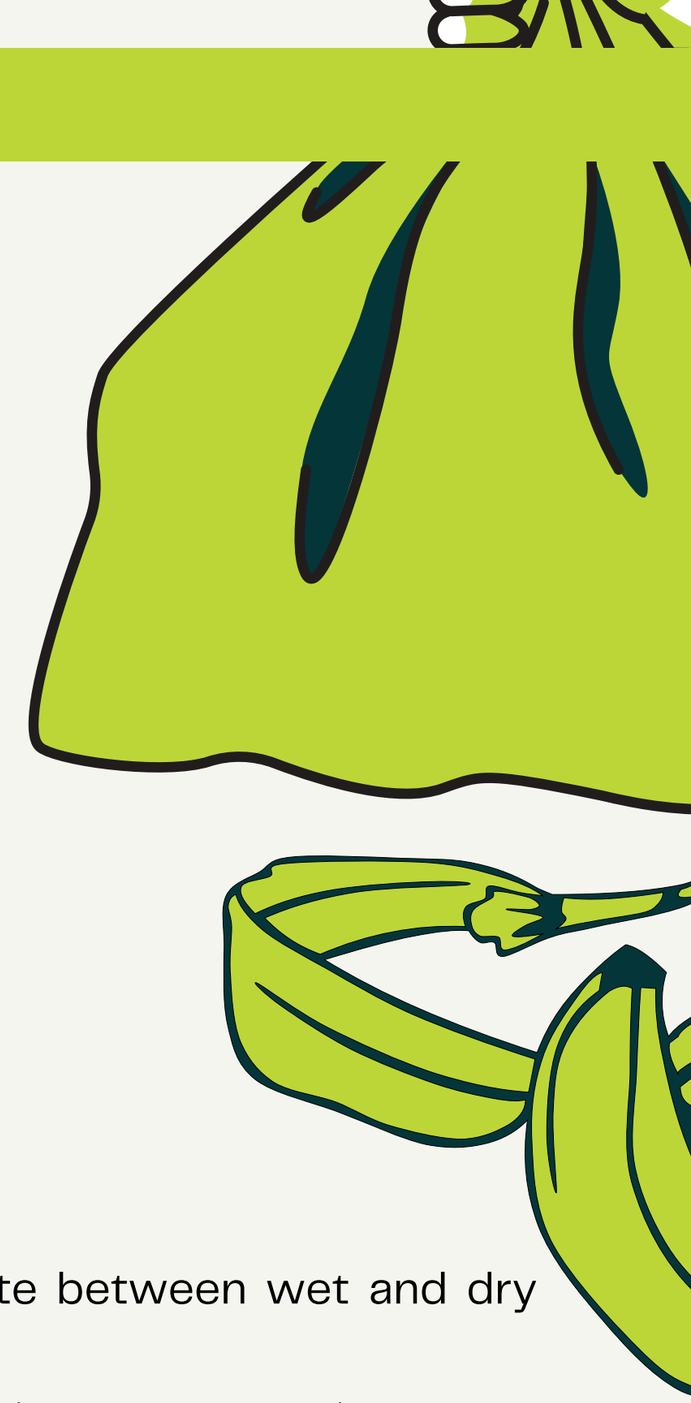
Dry-Wet Robo Sorter

An autonomous RC rover designed to efficiently sort wet and dry waste.



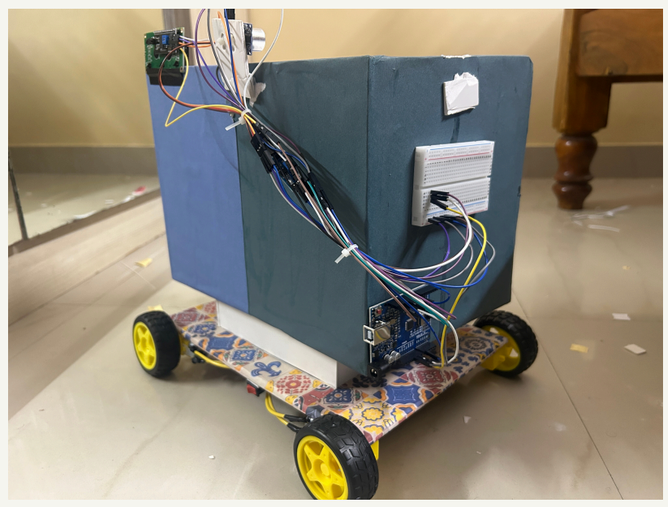
This innovative RC rover is equipped with an intelligent waste separation system that identifies and sorts wet and dry waste autonomously. Designed to streamline waste management, the rover employs sensors and machine learning algorithms to detect waste type accurately. This efficient, mobile solution reduces human effort, promoting environmental responsibility and cleanliness. Ideal for urban areas, public spaces, and educational campuses, our rover offers a sustainable approach to waste segregation, contributing to cleaner spaces and improved recycling processes.

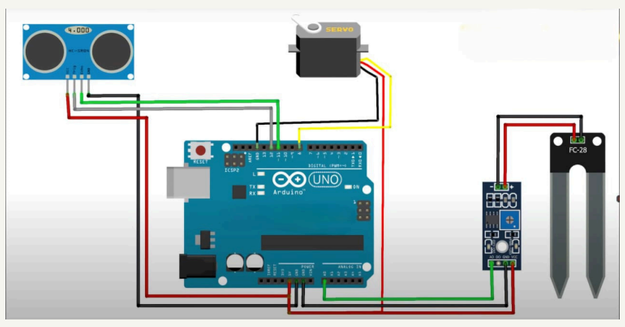
Key Features

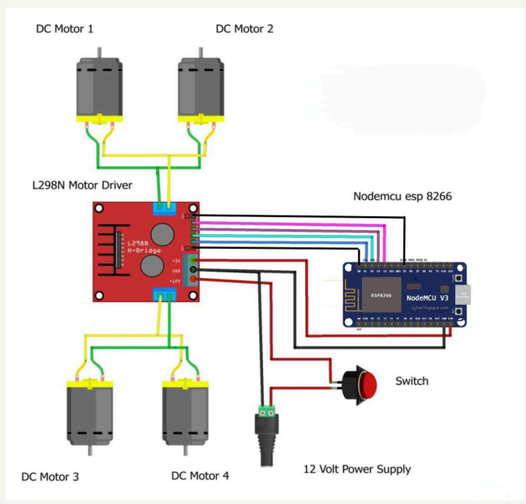
- Automated Waste Detection: Uses sensors and machine learning to differentiate between wet and dry waste.
- Real-Time Sorting: Instantly sorts waste into separate bins, ensuring effective waste management.
- Environment-Friendly Design: Promotes sustainable waste handling, aiding recycling and reducing landfill waste.
- Mobile and Versatile: Remote-controlled for flexible navigation in various environments like campuses and public spaces.
- Efficient and Time-Saving: Reduces the need for manual waste sorting, saving time and labor.
- Compact and Durable Build: Designed for outdoor conditions, ensuring durability and longevity in different environments.

Use Case In SRM Campus

- Campus Cleanliness: Maintains cleanliness across open areas, walkways, and common spaces.
- Smart Waste Management: Efficiently sorts waste in cafeterias, hostels, and classrooms.
- Environmental Awareness: Educates students and staff on sustainable waste practices.
- Reduced Manual Effort: Minimizes the need for staff to sort waste manually.







Components Used

- Arduino uno smd
- 16x2 LCD with i2c interface
- Servo 9g motor
- soil moisture sensor
- ultrasonic sensor
- nut and bolt
- Jumper wire
- Bread Board
- 12v Batter
- nodemcu
- esp8266 module
- L298N motor driver
- gear motor with wheels
- switch

TEAM 6- Yuvraj Harsh - RA2211003010055, Mohamed Harshad - RA2211003010152, Dinesh Raja- RA2211003010162, Parth Bhargava - RA2211003010254