IoT-Driven Smart Waste Segregation: Dry, Wet, and Metal Sorting System

ABSTRACT

Waste management is increasingly important, and proper waste segregation has a key role in enhancing recycling procedures. This project delivers an IoT-based Dry-Wet-Metal Segregation System that sorts wastes automatically based on Arduino, servo motors, ultrasonic sensors, and a soil moisture sensor.

The system sorts waste into three types: dry, wet, and metal. An ultrasonic sensor identifies the presence of waste, triggering the sorting process. A soil moisture sensor checks whether the waste is wet or dry, and a metal sensor identifies metallic items. Depending on sensor readings, a servo motor-driven mechanism sends the waste to the respective bin.

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