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Automated Dry-Wet-Metal Separator Using Microcontroller

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Abstract: The rapid increase in population and modernization lead to large waste of garbage. The waste segregation makes it simply reuse and recycle. The proper management system is not available for segregation of dry, wet and metal waste and Proper disposal of waste is not followed in crowded areas. Waste garbage affects in environment management, segregation and transportation. Technology always helps in making humans life easier. These papers purpose an automated waste segregation for households and It is designed to sort out the different waste For separating metal and dry waste into their respective bins by different sensors along with the use of conveyor belt. This system can be used in industries for the employees to use daily segregation of waste at dump yards is time consuming and can be recycle. These garbage waste can be reuse and recycle.

This technology is particularly significant in recycling and waste management industries, where it enhances the recovery of valuable metals and minimizes environmental impact. The integration of dry and wet processes in metal separation offers several advantages. It increases the overall efficiency and purity of metal recovery, reduces energy consumption, and allows for the processing of a wide range of materials, including complex electronic waste and mixed recyclables. Additionally, the wet process aids in the removal of contaminants and non-metallic impurities, resulting in higher-quality end products. Overall, the dry-wet metal separator represents a significant advancement in recycling technology, providing a comprehensive solution for the effective and sustainable recovery of valuable metals from waste streams. Its application is crucial for improving resource efficiency and supporting environmental conservation efforts

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