

Automatic Waste Sorting Machine

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Abstract: *Modern world meets lots of challenges that includes Smart waste management system. It is become matter of big concern if proper disposal system is not managed. Managing waste effectively and recycling efficiently, a nation can ahead one step forward. In this work, an automatic sorter machine is developed which can sort out the wastes in various categories to make waste management easier and efficient. It can be possible to sort out metal, paper, plastics and glass by developing an electromechanical system using microcontroller and operational amplifier. This conference paper presents the design, development, and implementation of an intelligent automatic waste sorting machine aimed at enhancing waste management processes. With the increasing global waste generation, efficient sorting and recycling methods are essential to minimize environmental impact. The sorting procedure will make recycling more efficient. By means of this waste sorter, the conventional waste management system will be transformed into SMART system. This SMART system will help to make our environment more suitable for living, reducing global warming and making the world healthier.*

Keywords: Automatic Sorter Machine, Smart waste management, Microcontroller, Microcontroller, Sensor implementation.

REFERENCES

- [1] Rahman, Md Wahidur, et al. "Intelligent waste management system using deep learning with IoT." Journal of King Saud University-Computer and Information Sciences (2020). <https://electronicslovers.com/2018/10/arduino-based-automated-waste-segregator-final-year-project.html>
- [2] Sanguino, Ramón, et al. "Current trends in economy, sustainable development, and energy: a circular economy view." Environmental Science and Pollution Research 27.1 (2020): 1-7. https://www.researchgate.net/publication/342483735_Automatic_Waste_Segregation_and_Management
- [3] Azizuddin, Muhammad, Ahm Shamsuzzoha, and Sujana Piya. "Influence of Circular Economy Phenomenon to Fulfil Global Sustainable Development Goal: Perspective from Bangladesh." Sustainability 13.20 (2021): 11455. <https://nevonprojects.com/automatic-waste-segregation-system/>
- [4] Kumar, Nallapaneni Manoj, et al. "Artificial Intelligence-based Solution for Sorting COVID Related Medical Waste Streams and Supporting Data-driven Decisions for Smart Circular Economy Practice." Process Safety and Environmental Protection (2021). https://www.researchgate.net/publication/349419323_AUTOMATED_WASTE_SEGREGATOR