

Automated waste management system

ABSTRACT

Manual excessive work and higher costs are always indispensable in solid waste disposal, particularly in the segregation process. An automated and low-cost waste segregation system was developed and presented in this paper. The proximity principle is employed to identify different types of solid waste comprises of ferrous metal, non-ferrous metal, and glass. The inductive proximity sensor was used to identify metal waste while magnet sensors were used to determine the ferrous metal. The capacitive proximity sensors are used to detect the glass waste. The developed waste segregation system was proven able to identify ferrous metal, non-ferrous metal, and glass with 100% accuracy. Optimistically, further enhancement of this system would be able to provide an automated method in waste handling and making the segregation process more effective.