ABSTRACT

FABRICATION OF WASTE SEPERATION USING SMART DUSTBIN

The purpose of this project is the realization of a compact, low cost and user friendly segregation system for urban households to streamline the waste management process. We are implementing a smart dustbin which is a cheap, easy to use solution for a segregation system at households, so that it can be sent directly for processing. Larger items are removed by manual sorting. Materials smaller than the diameter of the holes will be able to drop through, but larger particles will remain in the drum. For metallic objects electromagnets or eddy current based separators can be used. Near infrared scanners are used to differentiate between various types of plastics based on the ability of the material to reflect light. X-rays can also be used to segregate materials based on their density.\ The IR sensor detects the waste and activates microcontroller .Generally IR sensor is used to sense certain characteristics of its surroundings by either emitting and/or detecting infrared radiations. Then microcontroller activates DC motor which is used for rotation of the conveyor belt.