

# **Design and Fabrication of Metal and Non-metal Separator**

by

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## **ABSTRACT**

Our society has been facing huge garbage problem, a mixture of different waste materials. This project aims to develop a machine that can separate metallic and non-metallic materials from the garbage. It is based on a working principle of sensing the kind of material and segregate the metal in one box and the non-metal in another box. The purpose of this project is to make material recovery and recycling easier. As the waste materials move over the belt, a metal sensor will activate the actuator which will push the metallic material in a box; otherwise it will go the next box.

The practical way of dividing these two types of waste materials is based on their electrical conductivity. The equipment used for the separation was based on eddy current separator theory. Part of the project's research included a market analysis and a description of many commercially systems available.

