

# Wireless Robot for Metal and Dust Collection

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**Abstract:** *This robot features a conveyor system that it may utilise to move the aforementioned materials as well as distinguish between metallic and non-metallic materials. Additionally, dust and metallic waste will be gathered utilising hoover systems and magnets, respectively. Research on commercially available devices for sorting metallic garbage, such as magnetic conveyor systems, should be conducted before the project is launched. An apparatus for mechanically manipulating things and moving them from one location to another is a conveyor system. Metal and non-metal waste have been separated using magnetic pulleys. It is necessary to follow the standard design process flow, which calls for the production of conceptual and detailed designs before fabrication. Prior to manufacturing, analysis equipment was done by doing calculations, such as the computation of gear and motor torque. The battery powers the entire system, while the solar panel powers the battery's charging. In this work, a completely automated conveyor system that may be used to the management of metallic trash is detailed in detail along with the predicted results.*

**Keywords:** Ferrous, Non-ferrous, Bluetooth Module, Arduino, IOT

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