

FABRICATION OF SCRAPE COLLECTING AND DUST CLEANING MACHINE – REMOTE CONTROLLED

INTRODUCTION

Robot is an electromechanical machine and used for various purposes in industrial and domestic applications. Robot appliances are entering in the consumer market, since the introduction of iRobots. Many related appliances from various companies have been followed. Initially the main focus was on having a cleaning device. As the time pass on many improvements were made and more efficient appliances were developed.

The main objective of this project is to build a unique kind of mechanical system to achieve a new kind of approachability in the field of automation. The machine is able to collect the hard material that is distributed in the area which is either scrap or some useful material. In this system we make a round rotating fang collector system which will draw the material into its back space..Also coupled with floor cleaning machine. Both are operated remotely using wireless communication.

WORKING PRINCIPLE

Firstly robot starts and it can be moved forward, reverse, right and left according to our requirements and perform cleaning action. And we can turn on the scrap collecting machine as per the necessities. IR (Infrared) module have been used to transmit and receive the signal to operate the robot through remote. This robot can perform sweeping and scrap collecting tasks. IR modules have been used for wireless communication between remote (manual mode) and robot and having range 20m.

BENEFITS OF RECYCLING SCRAP METALS

1. 75% saving in energy
2. 90% savings in raw materials used
3. 86% reduction in air pollution
4. 40% reduction in water use
5. 76% reduction in water pollution
6. 97% reduction in mining wastes

TECHNOFIST