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FINAL YEAR PROJECT REPORT

Automated Dustbin

In fulfillment of the requirement for degree of
Bachelors in Computer Engineering (BCE)

By

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Final Year Project is a demonstration for undergraduate students which is combination of teamwork and implementation of theoretical and practical knowledge. It enhances abilities of students to step up in their field. With this willingness, we affiliated with this project.

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Abstract

The designing and manufacture of garbage cleaning and disposing off the garbage to its designated position is presented in this report. Automation has become a domain that had already propagated its tendrils across absolutely every infrastructure industry and has now advanced further into sector of healthcare. The focus of this research is to design a robot which can dump the garbage filled inside the dustbin to the position where the container is placed. The Automated Dustbin uses a line following algorithm to measure the way, which includes 6 infrared proximity sensors out of which, two IR sensors are used to sense the path. Also, it utilizes two ultrasonic sensors, one to detect the level of garbage in the dustbin and other to detect the obstacle if comes on the way of LFR dustbin.

This indicates that it provides a clear and reliable method while minimizing production cost. The Arduino Mega 2560 had been used to build this robot, and the Arduino IDE was utilized to program it. General public will be able to use the dustbin via an app that will be connected directly to the Automated Dustbin. The interfacing of the app and Arduino will be done with the help of Bluetooth Module.

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