Automated Cleaning System

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Business:

We conducted a survey and spoke to a few people, which resulted in developing an automated robot.

Its manufactured cost is 5000INR and its price is 10000INR.

Product would be sold at railway stations, shopping malls, public areas (roads and building, cellars).

Customer Stories:

We visited Hi-tech city and Secunderabad railway stations, spoke to them and they are willing to buy our product.

We spoke to general public and through internal resources we got to know that amazon fresh and Wal-Mart companies are interested.

Problem: The existing mechanism to clean public areas is time consuming. Manual cleaning (workers) delays the cleaning.

Product: Automated cleaning system. Chargeable battery which delivers strong suction power for up to 1 hour. Its dimensions are 13\*12.8\*3.1 inch.

Technology:

Arduino programming for automation, Ultrasonic sensors for obstacle detection and other components are relay, Arduino board and motor driver.

Initial Prototype:

Initially we’ve developed a device that operates with remote control

Contributors:

Aditya Singh from mechatronics branch, suggested to use plastic fans.

Mentor Mr.Sandeep suggested to use PVC pipe for suction mouth and to use plastic as outer shell.

M.tech student Harsha suggested to use MOSFET for amplification.

Mentor Mr. Ramesh suggested to use dimensions for house cleaning.

Progress:

* Week1 – Field study regarding our track cleaning system.
* Week2 – Field study on automated cleaning system and customer survey.
* Week3 – Building a prototype from remote control to automation.
* Week4 – Arduino programming and working on sensors.
* Week5 – Enhancement of the product.
* Week6 –Scope of the product.