ITSP-2015

"AUTOMATED ROOM-CLEANER"

- TEAM NAME:-"THE TECHNOGEEKS"
- PROJECT TITLE:-"AUTOMATED ROOM-CLEANER"
- TEAM MEMBERS:-
    1. ABHINAV BANKA
    2. AMOGH DIXIT
    3. PRATIK BABHULKAR
    4. SHREERANG KAORE
- OVERVIEW:-

    We aim to create an automated bot which will vacuum and wipe any smooth-floored room by detecting and avoiding obstacles present (if any) in its vicinity. The basic idea is to create a small sized machine which can also clean the areas which are not easily accessible manually.

- MOTIVATION:-Our project idea was motivated by the busy lives which people live nowadays and the unavailability of maids.
- PLAN OF ACTION:-

Week 1:-

1. Buying all components
2. Building the chassis/skeleton of bot
3. Learning use of Arduino

Week 2 and 3:-

1. Working on mechanical components for vacuuming and wiping.
2. Introducing proximity sensors into our bot
3. Coding for automated-functioning
4. Working on design of bot and final assembly.

Week 4 and 5:-Testing, debugging and attempt at further advancements.

- Further advancements proposed (if possible):-
    1. Stair detection to avoid falling from heights.
    2. Exposing the surface to UV radiations in order to kill germs
    3. Manual control using remote.
- COMPONENTS REQUIRED:-
    1. Arduino
    2. Acrylic/metal sheets (for chassis)
    3. Proximity sensors(Ultrasonic ranging sensors)
    4. Motors
    5. Batteries ,circuit wires
    6. Servo-motors
    7. IC 7805,IC L293D
    8. Miscellaneous items (wheels, jumper wires, etc.)
    9. Vacuum generation components

- ESTIMATED COST:- 10000-12000 INR.