



Project Synopsis Presentation on

SMART VACCUM CLEANING ROBOT

Presented by

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OBJECTIVES

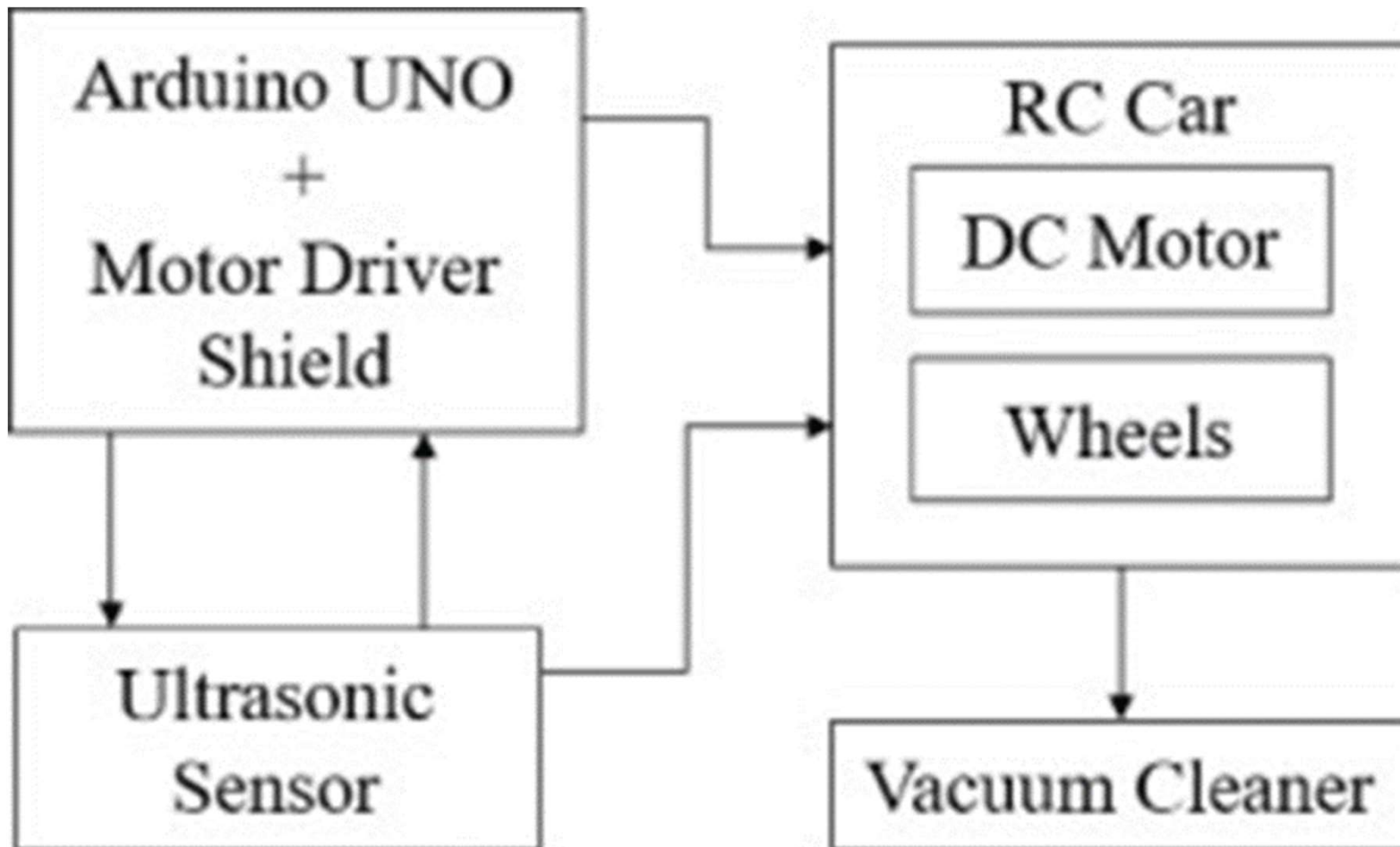
- I. Develop a user-friendly, autonomous vacuum cleaner robot for Home applications.
- II. to implement vacuum cleaner which works without human intervention.
- III. Households cleaning are becoming more automated, resulting in greater convenience and less time spent on home duties

REQUIREMENTS (HARDWARE/SOFTWARE)

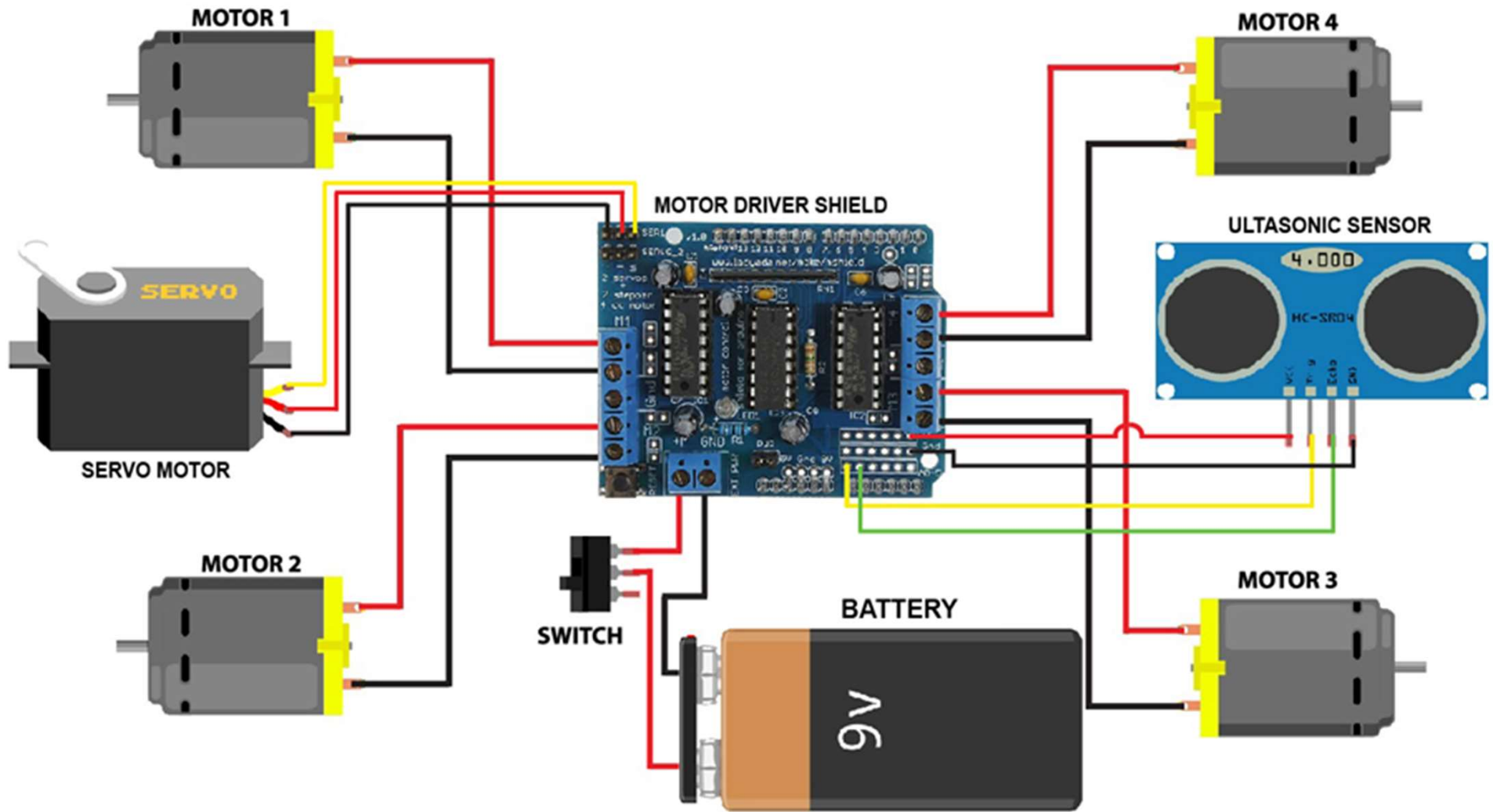
1. Arduino Uno.
2. Arduino Motor shield.
3. Ultrasonic sensor.
4. Servo motor.
5. Dc motors and wheels.
6. Batteries
7. CPU fan
8. Arduino IDE software
9. jumper wire.
10. Other tool



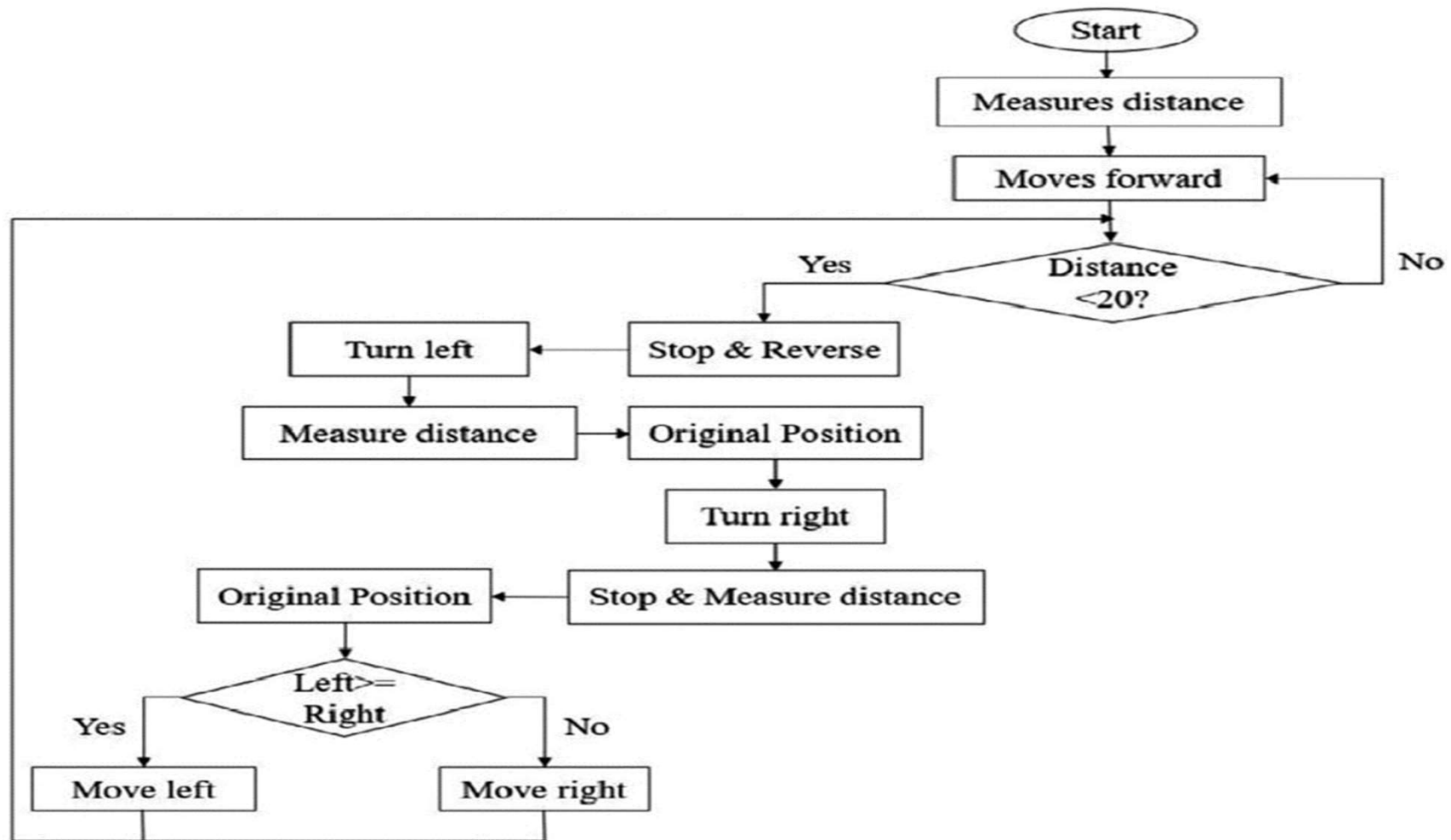
BLOCK DIAGRAM



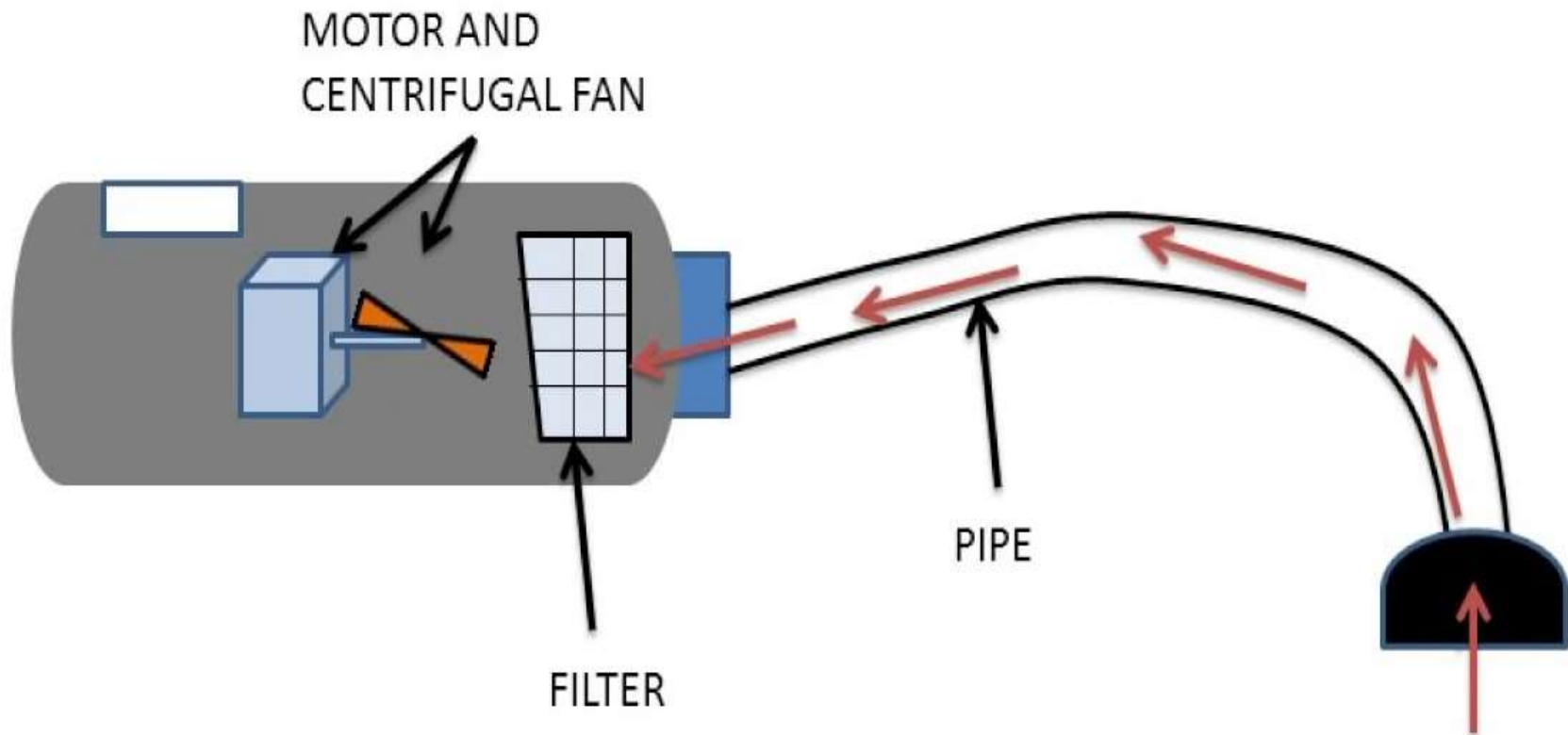
IMPLEMENTATION



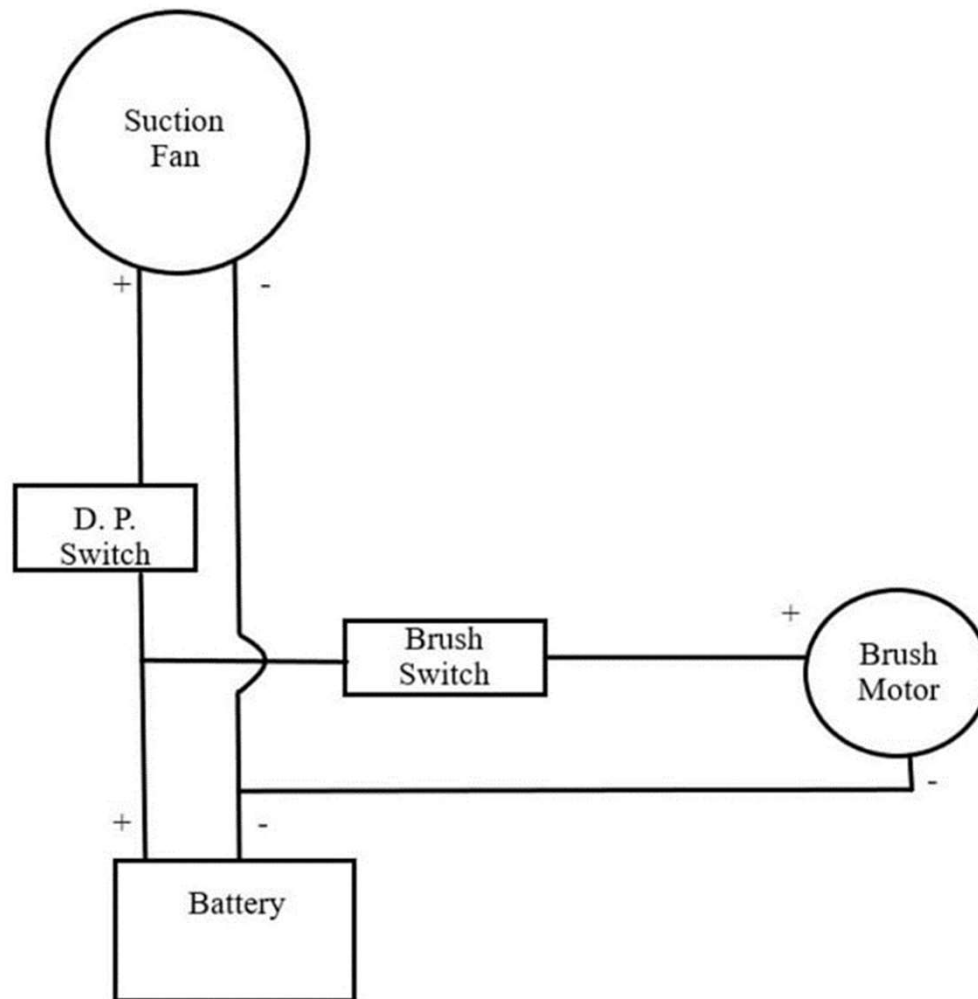
METHODOLOGY (RC CAR)



IMPLEMENTATION



METHODOLOGY (FOR VACUUM CLEANER)



PROTOTYPE



CONCLUSION AND FUTURE SCOPE



- This project helps collect the dust using a vacuum cleaner made using CPU fan and batteries without human intervention thereby reducing the hazards to human health.
- This is a simple and cost-effective cleaner. However, using a detachable bag may be better as removing the dust becomes simpler
- This robot can modify in future for a better effective work and multipurpose.
- Efficiency of cleaning can be improved. By using IR sensor and to add other features it can make a device that perfectly work for cleaning.
- This floor cleaning robot is limited to clean floor stairs cannot be cleaned by this so it can be modified for cleaning of stairs.
- This robot can be modified for cleaning of more than one room by one robot.
- This robot cannot clean circular room can be programmed for cleaning every shaped room. So, these are the future scope of floor cleaning robot.



Thank You!