Wall Climbing Bot

Models and Robotics Section, IITR
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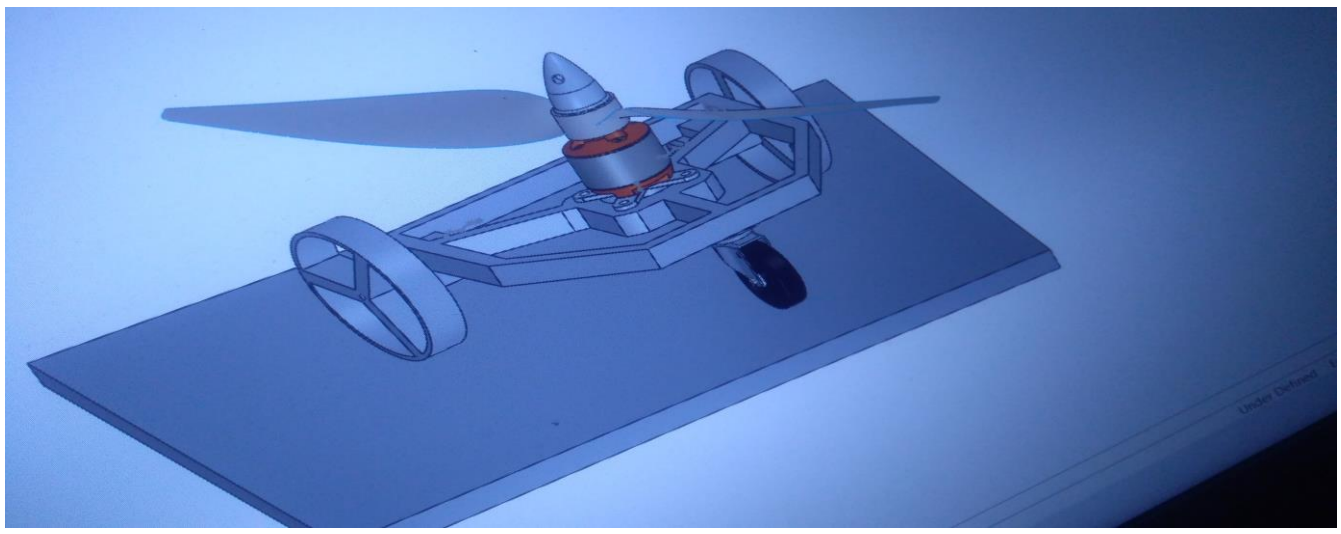
About

It is a manually controlled bot. It can be moved in a 2D space on the wall. It is a small bot which can stick on the wall for any amount of time



Working

Propellers convert engine horsepower into **thrust** by accelerating air and creating a low-pressure differential in front of the **propeller**. Since air naturally moves from high to low-pressure, when your prop is spinning, you're being pulled forward.

Due to pressure difference a normal force produce between tyres and wall surface , hence this force produce friction force that make the robot to hold on the wall.

Cost Structure

Materials	Cost
Arduino UNO	500
Motor Driver	250
Caster Wheel	30
Other materials	250
Total	**1030**

Application

- If mounted with camera, it can spy enemies.
- With proper sensor, it can detect small cracks on the wall, which is not visible through eyes.

Limitation

- It is connected with wire , which restricts its motion.
- It can not go high from a particular height because of pressure difference.

Future Improvements

- It can be made wireless with help of devices like Bluetooth.
- By improving electronic system and mechanical strength, it can reach greater heights.

Team Members

Monty

Yash Vardhan Rai

Bhavna

Rohit Atal

Mentors

Ujjwal Baranwal

Samarth Koolwal