Project Abstract

Maglev Car

Team Name: Tech-it-easy

- **Motivation**: Demand for fuels has been constantly increasing in automobile industry and this has led to depletion of fossil fuels. Also the smoke pollutes our environment. The normal cars that we see today consume large part of their fuel in overcoming friction due to road. So, we came up with an idea of car which reduces the fuel consumption to zero. Concept of Maglev train is well known to everybody. It floats above the track but can travel in only track's direction. So, we decided to make a Maglev car which floats in air (reducing friction due to track to zero) and what makes it different from the Maglev train is that we can hover it any direction we want. Maglev car will behave like generic car but with no fuel consumption and no pollution, that's what makes it special. This real life model of concept car might be the first one in the world.

- **Description:** For project's sake, we will be having a magnetic surface for Maglev car to levitate upon. There will be low strength magnets or superconductor inside the car. For the motion of car on the surface, we plan to make propellers system which will help in controlling the RC car.

- **Plan of Action:**

1st week: 1) We will plan and design the car and controller.

2) We will study and purchase all the hardware that we will require.

2nd week: 1) We will make the basic skeleton of the car and the controller.

2) We will also make the basic structure of each component of the car and controller.

3rd week: 1) We will work on the levitation of the car to optimum height.

2) We will work on the speeding and directioning system.

4th week: 1) We will make the controller for the car.

5th week: 1) We will work on transmitting and receiving commands between car and controller.

6th week: 1) Final testing and required optimization in the project will be done.

- **Material Required:**

1) Magnetic sheet
2) Low strength magnets \ superconductor + liquid Nitrogen cylinder
3) Microcontrollers
4) Sensors for transmitting and receiving interface between car and controller
5) Propellers
6) Motors
7) Insulating material for chassis and body

Note:- Non exhaustive list.

- **Approximate Expenses**: 9,000 to 10,000 Rs.

- **What we will learn from project:** We will get to learn the basics of electromagnetism. Since, we will be making our own controller, we will get to learn about motors, sensors, propellers, etc. more specifically the electronic components. Since we found no particular references to this concept on Google, we will be making this project from almost scratch.

- **Team Members:**
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