CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY

Name(s)
James D. Warner

Project Number
S0817

Project Title
Makeshift Maglev

Abstract

Objectives/Goals
To find the best angle for a series of electromagnets need to be placed to provide the best propulsion for a magnetically propelled car with permanent ceramic magnets attached to it.

Methods/Materials
Build a track using a 1X4 and 3/4 in. bean poles. Assemble the magnet circuit, set magnets to varying angles (for the different tests) hook it all up to a 12volt battery and put the car on the track. Observe what happens to the car.

Results
My particular design failed to propel the car more than an inch due to multiple flaws including magnet strength, car design and power issues. The design was flawed but helped to figure out ways to fix the design in order to hopefully make it work.

Conclusions/Discussion
In the end, my design failed, but the experiment provided e with valuable information that can be used to build fully functional small scale MAGLEV.

Summary Statement
The goal was to find the amgle at which the magnets propelling a MAGLEV train would be the most efficient.

Help Received
Friend helped wrap magnets