

CALIFORNIA STATE SCIENCE FAIR 2005 PROJECT SUMMARY

Name(s)

Christopher R. D'Elia

Project Number

J0104

Project Title

www.hover.air/

Abstract

Objectives/Goals

Objective: To create a hovercraft that can support my weight.

Methods/Materials

I created a hovercraft using plywood and a skirt made out of a tarp with a drawstring powered by a leaf blower. I calculated the pressure that it would take to lift the craft than test my theory by making a U tube monometer with some wood and clear tubing. I also calculated the position of the rider and the blower by using sum of the moments.

Results

The hovercraft worked so long as the skirt was properly tightened and the weight was properly distributed.

Conclusions/Discussion

I learned that the most important factor to building a hovercraft was to proerly position the weight and to make sure your moto was strong enough to lift the hovercraft and the rider.By first caluclating the position of the wirght and the presussure needed to lift the craft first made a big difference in the end.

Summary Statement

My project showed the importance of calculating balance and air pressure prior to building a hovercraft to insure the success of the project.

Help Received

I recieved help from my father, Richard Robert D'Elia, in constructing the disk and getting the proper formulas to calculate pressure, sum of the moments, and inches of water. I also received help sewing the skirt together with a sewing machine.