CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY

Name(s)
Kevin T. Yamazaki

Project Number
J0125

Project Title
Hovercraft Skirts

Abstract

Objectives/Goals
ABSTRACT

The Hovercraft is a modern invention, which glides on a cushion of air. A fan pushes down the cushion of air into a rubber #skirt#. A skirt surrounds the hovercraft to provide air supply and to balance the cushion of air. Obviously, everything has some type of drag/resistance, it is just a matter of controlling these setbacks. Which hovercraft skirt works best? I will test the main skirt types. Construct 3 identical hovercraft bodies. Mount the fan on a hovercraft. Launch it from a rubber band pulled back to a certain mark on the floor. Repeat 5 times for each hovercraft and measure where it comes to a complete stop. The finger skirt was the most frictionless and was able to glide the furthest on the ground. Each finger was able to get the most hover-height. The bag skirt had the least amount of peripheral jet stream. The bag skirt with splitter had the same contacts points, but a better peripheral jet stream. To succeed in creating the best type of hovercraft skirt, use a finger skirt to minimize contact points and maximize peripheral jet streams (increasing hover-height).

Summary Statement
My project is about the comparison of different skirt's hoverheights when applied to a hovercraft.

Help Received