CALIFORNIA STATE SCIENCE FAIR
2016 PROJECT SUMMARY

Name(s)
Sanskriti Balaji; Harshikasai Kellampalli

Project Number
J0103

Project Title
Riding On Air: How a Hovercraft Hovers

Abstract

Objectives/Goals
Our objective/goals was, if a certain amount of air (depending on the weight of the objects being placed on it) is let into the hovercraft then the hovercraft will hover.

Methods/Materials
We followed the instructions on Science Buddies to build our hovercraft. The three most important variables in this engineering/aerodynamic project would be the wood base, plastic sheet, and the leaf blower.

Results
If a certain amount of air is not let into the hovercraft, the hovercraft will not be able to rise or hover. Air is fluctuating inside the hovercraft at all times for it to be in motion. Also, the hovercraft speed (measured in cubic feet per minute) depends on the amount of weight the person sitting on it is.

Conclusions/Discussion
Our hypothesis was true. There needed to be a certain amount of air measured in cubic feet per minute for it to be hovering. Also, we learned that if there is too much air pressure in the hovercraft, it will burst and tear the plastic. We met our design criteria, which was that the hovercraft needed to hold a person that weighed at least 112 pounds.

Summary Statement
We are testing how a hovercraft hovers with a certain amount of weight, and how many cubic feet it can travel.

Help Received
Our dads helped us build the hovercraft.