# CALIFORNIA STATE SCIENCE FAIR
## 2007 PROJECT SUMMARY

**Name(s)**
Brandon Pastre; Sandra Boulos

**Project Number**
**S0205**

**Project Title**
# The Home Made A.C.V. (Air Cushioned Vehicle)

**Abstract**

**Objectives/Goals**
Our goal is to create a hovercraft using house hold materials. Basically things you would find in your home. We got this idea from watching a movie of a man building a space ship in his garage. When we say household materials basically we cant use a special made hovercraft material.

**Methods/Materials**
Our materials were a Gas Leaf blower to inflate the skirt. a gas weed whacker engine which was one of our failures. an electric scooter motor which powers the fan for acceleration. Two 12ft. rope to steer. PVC piping to even out all of the air in the skirt. A 4x8 platform which is the foundation of the hovercraft. Nylon material or non air leaking material used for the skirt. Duck tape to hold the skirt in place. 24 or a 32 inch fan used to accelerate. Bendable metal which is able to form into a circle so it can force air in the direction we want to go with some help from the flaps. Spray paint which is used for decoration.

**Conclusions/Discussion**
Our data shows that our hovercraft could be made from household materials. We accept our hypothesis by testing and building our model of an ACV out of household materials. We found our hypothesis to be true because the trapped air makes the skirt inflate and the air pressure causes the plywood to lift. We the group, have learned a lot with doing this project such as the strength of air. The unexpected thing that happened was the ACV needs a skirt that can fit it just right. We didn#t expect to work on the skirt for a long time. It is very important to understand that the air makes this craft hover which is amazing. An ACV that we built can carry 2 people each one being under 180 pounds. Not only that but by testing it we found out that our hovercraft can LIFT UP TO 300 POUNDS!!!

**Summary Statement**
Our project is to make a homemade hovercraft out of household materials.

**Help Received**
Parents donated money for materials, Machinery work was done by Mr. Pastre, Teacher guided us