



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Ashkan D. Farida	Project Number J0105
Project Title How Does the Pitch of the Blades on a Helicopter Affect How Much Power Is Produced?	
Abstract Objectives/Goals I tested how the pitch of the blades on a helicopter effect how much power is produced. I hypothesized that as the pitch increases, so will the amount of power produced. Methods/Materials A wind tunnel was built to accurately measure the information. When the wind tunnel was built and ready for experimenting, the pitch of the blades was changed to either 0°(control), 10°, 20°, 30° and 40°. When the motor was turned on, the wind speed was measured by a wind meter, then the speed of the wind was recorded. Results After the trials were done, the average wind speed produced was; 6.52 kph at 0°, 29.52 kph at 10°, 22.88 kph at 20°, 14.93 kph at 30°, and 11.97 kph at 40°. Conclusions/Discussion I concluded that my hypothesis is incorrect. A change of pitch does affect how much power is produced.	
Summary Statement My project is about how the pitch of the blades on a helicopter effects how much power the helicopter produces.	
Help Received Dad helped drill holes into air duct.	