



**CALIFORNIA STATE SCIENCE FAIR
2012 PROJECT SUMMARY**

Name(s) Harrison M. Jantz	Project Number J0114
Project Title Efficiency Study of Wind Turbine Blade Design	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals To determine which blade pitch is most efficient for wind turbine blade design in a high wind area.</p> <p>Methods/Materials By using three identical wind tunnels, I was able to test multiple, scaled down, wind turbine blade designs of varying pitch.</p> <p>Results I found that my hypothesis was correct and the blade with the 25 degree pitch was the most efficient.</p> <p>Conclusions/Discussion The 25 degree pitch blade was found to be the most efficient, because it had the most surface area in contact with the airflow. This could help maximize the electricity produced from a wind turbine farm making this form of green energy more efficient.</p>	
Summary Statement My project is about determining which blade design is most efficient in high wind areas.	
Help Received I received help in fabricating the scaled-down wind turbines from my dad who used a solid model printer.	