



**CALIFORNIA STATE SCIENCE FAIR  
2009 PROJECT SUMMARY**

<b>Name(s)</b> <b>Justo Padron, III</b>	<b>Project Number</b>  29035
<b>Project Title</b> <b>Does Wing Affect the Amount of Kinetic Energy Produced by the Different Wind Blade Designs</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The objective of my project was to test different turbine blade designs and the effect it will have on the amount of kinetic energy produce. <b>Methods/Materials</b> The following materials were used to construct a homemade wind turbine machine. A 3 geared PVC wind turbine, volt meter, fan, bossial wood, plastic, wood dowels and digital volt meter. The blades were designed and mounted onto the geared turbine and the blades were rotated to various degrees. <b>Results</b> My results confirmed my Hypothesis that a curved blade will produce more kinetic energy than the other blade designs. The different blades designs consisted of the square, round and curved (semi-round), each blade was rotated to three different degree settings. The final results showed that the curved wood blade set at 30 degrees produced the most kinetic energy. <b>Conclusions/Discussion</b> My theroy that the curved wood blade was correct. After all the blade designs were tested for each degree rotation and the different blade materials the averages for each test was calculated which then determined the final results. Although my testing was limited due to the complexity of the wind turbine systems being used today, I can honestly say that my home made system was able to illustrate that wind is and can be an effective use of mother nature to produce an alternative and clean energy source. The way of the future for alternative energy is wind. It cheap and there is lots of it.	
<b>Summary Statement</b> Does a blade design of a wind turbine effect the amount of kinetic energy produced.	
<b>Help Received</b> My father helped with the construction of the wind turbine machine	