

Sierra Beebe

*Go For the Gusto: Blade Design and Electrical Output*

The purpose of this project is to find which is the best blade design to produce the most electricity. Four different blade designs were made and modeled with corrugated plastic. Each design was tested by placing the blades on a homemade 3 foot wind turbine. The turbine was placed three feet away from the box fan and the fan was set on high. A multi-meter was attached to a DC generator to test how many volts each design generated. Blade 4 had the best average. It is believed that this occurred because of its structure. It is wide at the base and gets skinny toward the tip. This is a good design for the air to flow freely down the blade. The hypothesis was not correct. Blade 2 didn't have enough surface area to catch the wind.