



**CALIFORNIA STATE SCIENCE FAIR  
2005 PROJECT SUMMARY**

<b>Name(s)</b> <b>Justin R. Riordan</b>	<b>Project Number</b> <b>J0120</b>
<b>Project Title</b> <b>The Shape of a Glider: How Far It Flies</b>	
<b>Objectives/Goals</b> The purpose of this experiment was to help airplane/glider builders know which design flies the furthest	
<b>Abstract</b> <b>Methods/Materials</b> 12 Pieces of Graph Paper, 12 Pieces of wax paper, Old thin cardboard box, Pencil, Ruler, exacto-knife, Tissue paper, Thin wooden sticks, Long measuring tape, Open space to throw airplanes, Hot glue gun and glue.  Method: i built 12 difrent shape winged gliders of basswood and covered with tissue paper. i trough each one 5 times then adveraged them to find witch one flew the futhest.	
<b>Results</b> the glider with small airfoils, and large turned up wings went the futhest	
<b>Conclusions/Discussion</b> In project I discover that plane five, which had large airfoil, big turned up wings, instead of plane three (airfoil, small turned up wings). For some planes followed a pattern, for example plane three which went far then shorter than longer than shorter, but for plane 12 it went all sots of different lengths. Through the whole experiment I fought with the wind, example: one time I throw a plane it and it pulled a prefect u-turn and landed three feet short of were it turned. Another time the wind caught the plane and it flew the farthest of all the planes. The best shape for a glider to flight the farthest is to have larger, turned up wings with larger airfoils. On average the planes with turned up wings flew farther than their counter part with not turned up wings. On top of that, comparing the average distance, the planes with larger airfoils did better that their opposites. Lastly the larger wings worked better for the distance. For all these reason I declare that part of my hypothesis is in correct because I thought that the plane with airfoils and smaller turned up wing would fly the farthest. I was correct that airfoils and turned up wings, but I still guessed the wrong plane.	
<b>Summary Statement</b> my project told me which wing shap for basswood gilder would go the furthest	
<b>Help Received</b> Mr. Armstrong (teacher) helped me with write up; mom help build planes; friend help record plane distance	