**Project 1.2.14b Glider Design: Competitive Flights Rubric**

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| Category | 5 Points | 4 Points | 3 Points | 2-0 Points | Score |
| Safety | Safety issues identified; possible solutions addressed | Issues identified but minimally addressed. | Issues identified but not addressed. | Missing. |  |
| Aerodynamic Characteristics | Main wing and stabilizers are shaped correctly and symmetrically and are aligned.  Glider has uniformly rounded leading edges and tapering trailing edges.  Angles of incidences closely match with plans. | Main wing and stabilizers are correct in size, shape and placement.  Leading and trailing edges are smooth and straight.  Angles of incidences are slightly off the plans. | Main wing and stabilizers are incorrect size, shape or placement.  Leading and trailing edges are rough or uneven.  Angles of incidences are incorrect. | Little resemblance to the AREY design. |  |
| Appearance and Durability | Glider is neatly and accurately constructed with joints that are seamless.  Decorations are neat, creative, and attractive.  Glider can withstand casual impacts with little or no damage. | Glider is neatly and accurately constructed but with small gaps and imperfections in joints.  Decorations are appropriate.  Glider suffers damage on casual impact due to material failure, not construction error. | Glider in inaccurate with significant or multiple gaps or flaws.  Decorations are inappropriate or unattractive.  Glider suffers damage easily or due to construction errors. | Glider construction shows little attention to quality. |  |

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| Flight Characteristics | Flight path   1. Exceeds 36 feet in distance. 2. Slopes uniformly downward without changes in pitch. 3. Is level in a uniform straight line without changes in yaw. | Flight path:   1. Exceeds 24 feet in distance. 2. Rises or sinks gently (pitch). 3. Curves gently left or right (yaw). | Flight path:   1. Is less than 24 feet in distance. 2. Rises or sinks dramatically (pitch). 3. Curves sharply left or right (yaw). | Glider did not launch or structurally failed during flight. |  |
|  |  |  |  | Total Score |  |