Sky Soarers Challenge: Official Rule Book

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1. Introduction

The Sky Soarers Challenge is a glider competition aimed at promoting innovation, creativity, and engineering skills among students. Participants will design, build, and fly a lightweight glider, made up of balsa wood, adhering to specified rules and constraints. The challenge encourages participants to apply principles of aerodynamics, material sciences, and mechanical engineering to create functional, flight-ready glider.

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2. Objectives of the Challenge

- Encourage students to explore avionics and aerospace engineering.
- Develop hands-on skills in designing and building lightweight glider.
- Foster teamwork, problem-solving, and practical application of engineering concepts.
- Promote environmentally sustainable design using balsa-wood as the primary material.

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3. Competition Format

- Stage 1: Flight Challenge
  Participants must launch the glider manually by hand. No mechanical aids or catapults are allowed. The teams will compete in:
  - Distance Test: How far the glider can glide.
  - Flight Time: How long the glider can glide.
- Stage 2: Evaluation
  Based on flight performance, design, and overall engineering, teams will be evaluated by a panel of judges.

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4. Eligibility Criteria

- The competition is open to all school and university students.
- Teams may consist of up to 3 members.
- Participants should have basic knowledge of aerodynamics, material sciences, and flight principles.

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5. Design and Construction Guidelines

- The glider must be a non-motorized, manually launched model.
- The glider will be constructed by balsa-wood, but it must not have any propulsion systems, motors, or remote controls.
- Maximum Wing Span Allowed: 25 inches
- Maximum Wight Allowed: 200 grams
- Launch Source: Only hand-launched mechanisms are allowed.

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6. Submission Guidelines

- Teams must construct the gliders by themselves. Pre-fabricated kits or models are not allowed.

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7. Evaluation Criteria

- Flight Performance (60%):
  - Distance Test: 30%.
  - Flight Test: 30%

- Design and Innovation (20%):
  - Creativity in design.
  - Efficient use of wood and materials.

- Build Quality and Craftsmanship (20%):
  - Quality of construction.
  - Durability and safety of the design.

- Build Quality and Craftsmanship (10 - marks):
  Participants will have the opportunity to earn bonus points by successfully launching their glider through the designated checkpoint during the competition.

8. Awards and Prizes

- Prize Money: Winner: 30,000
  1st Runner Up: 20,000
  2nd Runner Up: 10,000
- Recognition: Winners will be featured on the event's website and receive certificates or trophies.

All participants will receive participation certificates, and the top designs will be showcased at the event.

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9. **Rules and Regulations**

- Teams must adhere to the material requirements.
- External assistance is not allowed in the design or construction phases.
- Teams must present their own gliders for inspection before the competition.
- Judges' decisions are final and binding.

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10. **Judging Panel**

- The judging panel will consist of:
  - Experts in aerodynamics, mechanical engineering, and aerospace design.
  - University professors specializing in aviation and aerospace technologies.

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11. **Team Registration**

- Teams must register through the official online form.
- Each team member's name, university, and contact information must be provided.
- Registered teams will receive a confirmation email with further instructions and deadlines.

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12. **Contact Information**

For any questions or additional information, please contact us at:

Email: contact@teknofestpakistan.com

Website: www.teknofestpakistan.com

Contact: +92 336 8285328