

## Trial Event – Origami Glider Relay (45 Minutes - Coach Scheduled Event)



Trail Events are created for students to explore upcoming events. We need as many students as possible to attempt these rules. This event will run if it is successful in 2024.

**Description:** Teams will build their choice of a Dihedral Magnus Effect or Tumblewing Glider. They will then use their glider to navigate an “obstacle” course for the fastest time. This event will take in a large room or hallway. This event does not have a written test this year.

**Participants per Team:** 2

### **Spirit of the competition:**

- It is a rules violation if coaches, parents, mentors, or spectators enter the competition area. Talking to the team members any time during the competition. Violation of this rule will place the team below all other teams.

### **Safety Requirements:**

#### **Safety glasses labeled ANSI Z87.1+ (impact rated)**

- All competitors must wear their eye protection during any competitor’s flight phase of the competition.
- If a team does not have the required eye protection, they will be given the opportunity to obtain it, time allowing, but will not receive extra time.
- If a team is unable to obtain eye protection, the team will not compete and will receive a no-show score.



### **Team members must bring:**

- Safety glasses
- Pencils, a ruler/straight edge, and scissors.
- The top of a large pizza box.

### **Materials Provided:**

- Masking Tape
- 40 GSM tracing paper
- A timer accurate to the nearest 1/100 of a second.

### **The Competition:**

#### **Part 1 – Construction Phase (15 Minutes)**

- Team members must write their team designator on their glider.
- Team members may practice at any time to adjust their glider within the 30-minute construction phase.
- Practice flights will not count as an official flight.
- Team members must inform the Event Supervisor when they are ready for their official flight.

#### **Part 2 – Flight Phase: (15 Minutes)**

- The team may choose to use the pizza box top or their hands to move their glider through the air.

- Team member #1 will stand behind start/finish line and notify the Event Supervisor they are ready to begin their official time.
- The Event Supervisor and assistant will start their timers on the first movement over the start line.
- Team member #1 will move as fast as they can through the course to the far end of the course and over the transfer line.
- Once over the transfer line member #1 will try to “hand off” the team glider to member #2.
- Member #2 will then move as fast a possible back over the start/finish line.

### **Scoring:**

The Event Supervisor and judge will record times from both timers to the 1/100th of a second. These times will be averaged for the team time.

- **Teams will add these times to their official timing.**
  - 5 seconds for each touching of the glider by either team member after the start.
  - 10 seconds if the glider touches the floor.
  - 30 seconds if the transfer between team members occurs over the course side of the transfer line.
  - 30 seconds if either team member leaves the transfer area before the team’s final time.
  - Disqualification if a team member enters the relay area during another team’s official timing.

The winning team will have the lowest time including penalties.

There are no tiebreakers for this as a trail event.

### **Possible Resources:**

Division A will not release previous tests, or the exact resources used by the Event Supervisor or test writer for any events. The listed resources are meant as a starting point. It is up to the competitor to research further.

### **Templates, building directions, and video help:**

- [Make Paper Walkalong Gliders - SciencetoyMaker](#)
- [Surf an Origami Big Mouth Tumblewing on a Wave of Air - SciencetoyMaker](#)
- [Dihedral Glider – SciencetoyMaker](#)

### **Advanced Gliding: If you are interested.**

- [Build and Surf an Origami Hang Glider on a Wave of Air - SciencetoyMaker](#)

