

Glider Project Overview

Task: Use the engineering design process to create an aerodynamic glider meeting various specifications.

Challenge: Maximize the flight distance (m) to mass (g) ratio while minimizing costs.

Rules

- Maximum team size: three students (smaller teams are permitted)
- The maximum budget is \$30 per team.
- Use only use commonly available materials. If you have a stash of specialized, but helpful materials, please verify with the instructor that they are permitted.
- No glider or other aircraft kits or models may be used.
- The glider must not use any propulsion besides the standardized launcher.
- The glider must be able to launch from the standardized launcher.
- You are expected to adhere to both the spirit and the letter of the rules. If you are unsure, ask.

Testing

- Every team uses the same, standardized launching mechanism to launch the gliders for testing.
- For glider pre-testing, optional practice times will be established before and after school.
- Final testing will be done in class with the instructor having the final word on glider distance.
- Each group launches once before the second round of testing begins. If time and launcher allow, each glider get three launches. The flight distance-to-mass ratio calculation is made using data from the best of the three launches.

Submission Deadlines

- Signed contract (per individual): ASAP
- Research evidence (per team): _____
- Draft and material list (per team): _____
- Constructed glider (per team): _____
- Final report (per individual): _____

Good luck!