

National Engineers' Week Student Competitions

UAA Campus, Anchorage, AK

Saturday February 18, 2017; 10:00 am - 2:30 pm

Egg Toss Competition

Objective: To construct a device that allows an egg to be tossed over a barrier, without breaking, from a designated location to a target. The un-cracked egg that is closest to the center of the target will win.

Procedure: Register with the competition registration desk at the upper level of the student union building when your team is ready to begin. Your Team of up to three members will be issued a kit (containing an egg and such things as baggies, tape, paper clips, card stock, etc.), some basic tools (such as scissors) and be given 15 minutes to construct your device from the time you are given the kit until you return to the time keeper. Teams in the 1st to 3rd grade and 4th to 6th grade categories will be given 30 minutes to construct their structures. Only materials in the kits issued to each team may be used for the competition. No team can borrow or utilize unused material from other teams. Each egg **MUST** be enclosed in a sealed plastic baggie (included in the kit). Teams must only utilize those members listed on the registration slip. Teams taking longer than their allotted time will be penalized by having their final recorded distance increased 1 inch for each minute they are over the time limit.

At the end of the construction time, the team is to take their device to the designated time keeper for log-in then to the egg toss area and register with the competition official.

When the egg comes to rest, the official will measure the distance from the center of the target to the center of the egg container if it appears that the egg survived the fall. If, on close inspection, the official determines that the egg is at all cracked the distance will not be recorded. All decisions by the competition judges on the competition day will be final.

Scoring: If the egg survives the toss, scoring will be calculated using the following equation:

Distance from target (inches)

$$+ (\text{Construction Time (if over limit)} - \text{Construction Time Allowed}) \times \frac{1 \text{ inch}}{\text{minute}}$$

For example, if you took 20 minutes to construct your device but were only allowed 15, your egg survives the toss and you were 12 inches from the target, your score would be calculated:

$$12 \text{ in.} + (20 \text{ min.} - 15 \text{ min.}) \times 1 \text{ in./min.} = 17 \text{ inches}$$

Remember, the lowest score wins! Good luck!