

# Boy Scout Eggloft Competition Rules

## Objective:

To obtain the longest, SAFE, flight duration, recovery, and landing time in whole seconds from start of first motion at launch until the egg capsule touches the ground.

## Definitions:

- Safe Flight – This means that the rocket flies essentially straight during boost. For example, no loop-d-loops or horizontal flight paths.
- Safe Recovery – This means that the rocket parts, both capsule and booster must deploy their recovery device(s). For example, no ballistic descents. The parachutes must come out of the tube and open up enough to de-stabilize all parts of the rockets descent.
- Safe Landing – This means that the egg payload must be recovered intact. Damage to the other rocket parts is permitted as long as both the Flight and Recovery were judged safe as defined above.

## Timers

- Two QUARK members will time each flight.
- The individual flight score will be the average of the two times to the nearest whole second.
- If for some reason, there is an issue during the flight with one of the timers or stopwatches, the score for that flight will be based on the single available time rounded to the nearest whole second.

## Scoring

- Each team will be permitted two flight attempts.
- If both flights are SAFE flights, then the flight that achieved the longest time in whole seconds will be the Team's final score.

## Separations

- The rocket may be allowed to separate into two parts.
- Each part must deploy sufficient recovery device to provide a SAFE recovery.

## Returns

- Each rocket will be returned to the Judge and the capsule opened in the presence of the Judge to confirm a Safe Landing of the egg payload.
- If the capsule cannot be returned such that the condition of the egg cannot be verified, the flight will be disqualified.

## Eggs

- QUARK will supply sufficient eggs for the contest.
- They will be USDA large hen's eggs from 57g – 63g and less than 45mm in diameter.
- Eggs will be numbered and "checked out" by each team prior to flight attempts.

## Motors

- Quark will obtain sufficient C6-3 motors for the contest.
- Teams will obtain motors from a QUARK representative prior to each flight attempt.