

Syracuse Rocket Club

October 20, 2018

A-Impulse Super-Roc Duration

1. The purpose of this competition is to achieve the greatest duration possible with the longest rocket possible without impairing the structural integrity of the rocket.
2. An entry that comes apart, bends so as to crimp the body, or has a similar structural failure prior to ejection shall be disqualified.
3. Entries with bodies or significant structural parts made from hard or potentially unsafe material (e.g., hardwood doweling or fiberglass shaft) shall not be allowed. The rocket body tube shall be paper or cardboard.
4. The rocket shall have a minimum length (as described in 5.a.) of 75 centimeters, and a maximum length of 150 centimeters.
5. Super-Roc Duration Competition shall be scored as follows:
 - a. The length in centimeters of the model, as measured from the tip of the nose cone to the end of the motor nozzle, up to the maximum length for that category, shall be awarded as static points. If the model has more than one motor, the length shall be measured to the motor nozzle closest to the tip of the nose cone. No additional points are awarded for any length beyond the maximum.
 - b. The achieved duration of the model in seconds shall be awarded as flight points.
 - c. The static points and flight points thus obtained shall be multiplied to determine the total points for each flight. The contestant achieving the highest score is the winner.
6. Motor impulse may not exceed a single A motor (2.5 Newton-seconds).

A-Impulse Parachute Spot Landing

1. The winner will be the contestant whose rocket lands closest to a target point on the ground set by the contest officials. This will be measured as the distance between the tip of the nose cone (or motor nozzle if the model has no nose cone) and the target point.
2. The entire rocket must return to the ground safely with all parts connected together using a parachute as its sole recovery system. The parachute does not need to fully inflate in order for a flight to be qualified, but it must come out of the rocket body and cannot be deliberately packed in such a way that it cannot inflate.
3. Up to two official flights may be flown by each contestant. The contestant's score will be the best single score from one of the two flights.
4. Different model rockets may be used for each qualification flight.

5. A flight must be declared as a contest flight before the flight begins by so indicating on the flight card.
6. The motor used must be an A or higher impulse motor.