

The American Rocketry Challenge 2020 Explained

3

The rocket must reach an altitude of 800 feet. Teams are penalized one point for every foot above or below the goal.

2

The rocket must carry a payload of one raw egg and safely return it to the ground uncracked. All parts of the rocket must remain tethered or connected through takeoff and landing.

1

Teams of 3 to 10 students work together to design and construct a rocket.

4

All parts of the rocket must descend safely and remain connected together. Rockets must descend using at least one parachute.

5

The duration of the flight must be between 40 to 43 seconds. Teams are penalized by four points for each second outside that window.

6

At the National Finals, the rockets will be required to reach two new altitude goals of 775 or 825 feet within 39-42 seconds or 41-44 seconds respectively.

SCORING:

Teams are ranked on the combined score from their two best flights, the lower the better!

$$\text{SCORING FOR EACH FLIGHT} = \text{Unbroken Eggs} + \# \text{ of feet over/under} + (\text{seconds over/under} \times 4)$$

$$\text{FLIGHT 1} + \text{FLIGHT 2} = \text{TOTAL SCORE}$$

