



## Theta Tau Zeta Delta

Coed Professional Engineering Fraternity  
Engineering Leaders for Service, Profession, and Brotherhood  
Since 1904

### 2019 Pumpkin Chunkin' Junior Competition Information

Event Date: Saturday, Oct. 26<sup>th</sup>, 2019

Event Location: Greene Street Field

**\*\*\*Please make sure all participants sign a waiver and pay close attention to the safety and firing requirements.\*\*\***

#### Catapult Requirements:

- Catapult design can be no larger than 3ft x 3ft x 3ft
  - The design can be any size within those limits
  - The height is measured with the arm in the upright position
- During the scored rounds, standard tennis balls will be launched.
- Have Team name displayed on the frame
  - Personalizing your machine is encouraged

#### Safety and Firing

- The catapult is required to have a safety that can be disengaged from behind the firing line 10 feet away.
- The catapult must also be fired from 10 feet away.

#### Scoring

- **Distance (60%):** The furthest launch of the distance competition will be awarded the full 60 points. All other launch distances will be scored as compared to the furthest launch. For example, if the furthest launch is 45 yards, that team will be awarded the full 60, and a team with a launch of 37 yards will be awarded a fraction relative to the max distance:  $[(37/45)*(60)]$ .
- **Presentation (40%):** A team of judges including USC Engineering students will ask students from each team questions regarding their design/construction. Points will be awarded based on the students' understanding of and rationale behind their designs.

#### Prizes

- The awards ceremony will be held at the end of the event
- The winning team will be awarded a trophy



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### Information for Scoring/Measurement

There will be three total launches. Each team will have a group of scorers/measurers that will mark and record their distances. Each launch is comprised of one practice throw and two official throws. Only the official throw with the farthest launch will be recorded for points.

Prior to competition:

- Student groups will be judging based on rubric
- It is encouraged to keep a neat and detailed Engineering Notebook following the design, construction, and testing of the machine

Group of scorers/measurers:

- Watch where the ball hits and mark it
- Measure and record distance on sheet
- Give sheet to person at the Pumpkin Chunkin Table



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Score Sheet:

Team Name: \_\_\_\_\_ Advisor Name: \_\_\_\_\_ Date: \_\_\_\_\_

School/Org: \_\_\_\_\_

	Distance	Points/Percentage (Max 60)
Practice 1		
Official Throw 1*		
Official Throw 2*		

\*Best official throw counts

Engineering Process Evaluation (Max 40 Points)				
	15 pt.	10 pt.	5 pt.	0 pt.
Creativity		Have a uniform theme or building design that was incorporated throughout the catapult	Only put effort and design details into certain parts of the catapults	Same design from last year
Understanding	All team members have a complete understanding of what went into making the catapult and why they designed it the way they did.	Has understanding about the build of the catapult but lacks understanding of the reasoning behind the design	Only able to answer the most basic questions about the catapult	Did not understand the way the catapult works when asked
Teamwork/ Safety	At competition, the team works together and gives equal opportunity to all of its members. Machine safe.	The team has a few people who aren't participating or contributing. Machine safe	Only have one or two members contributing to the machine. Machine safe	No teamwork/collaboration between students or the mentor is doing the launching. Machine unsafe
Total:				

## Details:

- All teams should report to the fields on the morning of the 26th at 10:30.
- All machines will be turned in at the competition table upon arrival.
- The teams will be given the opportunity to walk through the Fall Into Science activities until 11:30.
- The competition will begin at 11:30 and end at 12:50.
- The winners will be announced around 2:00
- Announcements will be made at the start time of each event.

**Please send a final list of all students participating by October 18.**