



Theta Tau 2018 Veeblefetzter Challenge

Dear Students and Organizations:

Theta Tau Professional Engineering Fraternity of the University of South Carolina welcomes you to be a part of our inaugural Veeblefetzter Challenge! Veeblefetzter (/vee'b*1-fetz'*-er/) is a synonym for any obscure or complicated object or mechanism. The term is a combination from the German verb *weaben*, to weave, and *fetzen*, meaning mindblowing.

The idea for this contest was developed from the creative cartoons of William Heath Robinson and Pulitzer Prize winning Ruben Lucious Goldberg. Both of these artists from the early 1900s created cartoons of simple tasks that were made into overly complicated machines by using every-day items. Goldberg's cartoons sparked students interest nationwide to replicate and in turn compete to design machines that use the most complex processes to complete the simplest of tasks. Competitions in this format were originally developed by the Phi Chapter of Theta Tau at Purdue University in 1949.

Zeta Delta Chapter of Theta Tau challenges students to compete in USC's annual Veeblefetzter Challenge by either preparing a machine beforehand, or using materials provided to build a machine the day of the competition. Working on a Veeblefetzter Machine is a great way to develop critical thinking and problem solving skills in a non-traditional engineering environment. Participants will also get the opportunity to meet other students and discover a more light-hearted and humorous side of the world of engineering.

More information about this year's competition is provided in the attached package.

Please feel free to contact the Veeblefetzter committee of Theta Tau at (214) 490-7198 or ghitte@email.sc.edu should any questions arise!

Best of luck!

Ghitte Neethling ZΔ166
ΘT Professional Engineering Fraternity



Theta Tau 2018 Veeblefetzer Challenge: Student Packet

I. Competition Date:

- April 14, 2018

II. Competition Location:

- The University of South Carolina, Swearing Engineering Center.

III. Registration:

- Teams can register at this link: <https://goo.gl/forms/ML5CFcGMKC28Xvyk2>, or by emailing ghitte@email.sc.edu.
- A \$20 registration fee per team is required and is payable by money order or check made out to Zeta Delta of Theta Tau. It can be mailed to the following address:
Theta Tau
521 College St. Suite 407
Columbia, SC 29201
- Once a team has registered, they will be provided with the specific judging criteria and operational details for the challenge they wish to enter.
- Teams will also be assigned a mentor, who will act as a liaison. They will be able to answer any questions, and offer advice and encouragement for the competition.

IV. Team Restrictions:

- Each team must have a minimum of two (2) members.
- There is no limit on the number of members a team may have, however, the number of people allowed around the machines once the contest has begun may be limited because of space restrictions.
- Each team member must be an enrolled student at a(n) elementary, middle, or high school.
- Each team must have an instructor/mentor present during the competition



V. Design Challenge

- Teams will be given a task to complete and build a machine throughout the semester to present on competition day.
- The task assigned for our 2018 competition is: **Inflating a balloon**
- Teams are encouraged to be creative, complex, and incorporate themes into their machines as this emphasizes the spirit of Veeblefetzter.
- The machine specifications are as follows:

Goal:	Inflate a balloon
Must complete task described by Chairman.	
Physical Size of machine	Maximum: 6 feet x 6 feet x 6 feet
Minimum number of steps*	20
Maximum number of steps*	Unlimited
Minimum run time	2 Minutes
Maximum run time	4 Minutes
Air compressor hoses running to machine	1
AC/DC power cords running to the machine	1
Air compressor hoses and power cords used within the machine boundaries	Unlimited
Corporate Logos	Not Allowed
Themes	Are encouraged



VI. Creative Thinking Challenge

- Various objects will be provided the day of the competition (specifics to follow closer to the competition)
- Students will be given 3 hours to work on a machine that will complete a specific task.
- The task will be to **Inflate a balloon**.
- The equipment needed to complete the last step will be provided to each team, but the other steps will depend on the other objects that each team uses.
- The more steps a team is able to add, the higher their score will be.
- If a team so chooses, they can prepare one step in advance. If this is done, the team should be able to explain the physics behind the step (eg. A pulley provides a mechanical advantage and reduces the amount of force needed to lift an object)

VII. Safety:

- Safety is held to the utmost importance.
- Questionable items used in the machine must be approved by the contest site Chairman prior to the contest. If you think you need to ask if it is okay to use, ask.
- Objects that are not allowed in the competition include:
 - Live Animals
 - Electric arcing
 - Use of profane/indecent expression
 - Objects flying beyond machine boundary (does not include steam/gas)

VIII. Prizes:

- There will be a winner and runner up for each challenge (design and creative thinking)
- The winner of each will receive \$200, and the runner up will receive \$100