

2009 Pumpkin Launch Competition
Official Rules

1. Safety is the top priority.
2. Each launcher must have a trigger/release mechanism in order to launch. This can be something as simple as a long rope. The launching system must be activated from a distance of 6 feet from the launcher.
3. Human power cannot be used to hold the launcher in the energized state before firing.
4. Competitors cannot be members of more than one team.
5. Every team must have one person designated as the team leader. This person is responsible for registering and organizing their team.
6. Team size is unlimited.
7. The Team entry fee is US\$5 and is due at the preliminary event in the form of cash or check. The fee is increased to US\$10 after the preliminary event. This money will go towards a cash prizes for the winners, and the prepared pumpkins for competition day. The entry fee will be waived for all high school teams.
8. The fully assembled launcher base must fit inside a 4' x 4' x 6' box (length x width x height). Extensions from the launcher may exceed this volume in their full energy state (i.e. Trebuchet arm).
9. Launchers shall be purely mechanical – there cannot be use of chemical propellants. In addition, there will be no electrical power provided or allowed at the competition site. Any stored mechanical energy must be created with the judges present.
10. There is no official weight limit. However, teams must be able to deliver the launcher to the competition site both on the preliminary event 10/24/2009 as well as on competition day.
11. Each team will be provided with 4 pumpkins weighing no less than 2 lbs, to launch. Pumpkins will be hollowed out and contain a bag of Skittles (like you would buy at the convenience store) which remains inside the pumpkin during flight. Nothing may be attached to the pumpkin to aid its flight.
12. The most accurate and longest distance out of the four launches will be counted.
13. Circular targets will be set at 75 feet, 125 feet, and 250 feet. Targets will be no bigger than 9 feet in diameter. A team's accuracy score will be the distance of the skittles from the target. Launches exceeding 400 feet will earn no points, and also use up one of the allowed shots.

14. Awards will be given out for the following categories:

- Longest hang time
- Best Team spirit
- Coolest looking launcher
- Best mechanical design

Winners will be determined solely by the Accuracy & Distance Scores. These scores are calculated as shown below:

Accuracy & Distance Score = [Max. Distance] - 2 x [Distance. from target]

[Example: You launch 130 feet but miss the target by 10 feet. Your overall score is $130 - 2 \times 10 = 110$.]

- The best mechanical design, coolest looking launcher, best team spirit, and longest hang time awards will be determined by the judges.

- Teams may only make minor adjustments to launchers after October 24th.

15. The use of ready-made kits or plans is strictly prohibited. In addition, each launcher must clearly display the team name.

16. Each team will have a strictly enforced 10 minutes to prepare their launcher and fire the first shot, and 5 minutes between each of the last three shots.

17. If a launcher breaks before all four launches have been completed, the team will be given a maximum of 15 minutes to fix any problems. The team may be asked to move, and another team may launch while these repairs are being made. The team has the option of using only the launches already completed. The goal of this being to reduce down time.

18. If at any point during the competition the judges determine that a launcher or team is operating or behaving in an unsafe manner, that team may be disqualified.

19. The preliminary event **and** registration will be held on Saturday October 24th 2009 at the field between the Goergen Athletic Center and Wilson Boulevard @**3:30 pm**. During this event your launcher must be fully functional, and your airborne pumpkin must travel at least 30 feet.

20. The competition starts on 3:00 pm on Friday, October 30th 2009 on the Wilson Quadrangle. All teams are expected to be in front of Wilson Commons by 2:30 pm for 'weigh-in,' ensuring they are safe and fit in the volume requirement and that they clearly display their team's name, as well as for registration purposes.

21. Both the competition and the preliminary event will go on rain or shine. In the case of extreme weather, or other unforeseen circumstances, the competition may be rescheduled.

22. Judges have final say on all matters. Dispute may lead to disqualification.

23. If any rules are unclear, or need additional clarification, please contact Trevor Pollock @ uroch.asme@gmail.com

24. Additions or changes to these rules will be posted on the website at

<http://www.me.rochester.edu/~asme>

Please check frequently during competition season!

Preliminary Event Information:

Field behind Goergen Athletic Center
Preliminary Event Site, Oct. 24th, 3:30 PM
822 Joseph C. Wilson Blvd.
Rochester NY, 14627

Competition Day Information:

Wilson Quad & Dandelion Square
Competition Site, Oct. 30st, 2:30 PM weigh-in, first launch scheduled for 3 PM
500 Wilson C. Blvd.
Rochester NY