

Mansfield High School Senior Class

PUMPKIN CHUNKIN' 2017

RULES and REGULATIONS

MACHINE

1. Machines must be built by registered team members only.
2. Launchers must be built in either the style of a catapult, trebuchet, or air cannon (gas-powered or electrically-powered machines are **not** allowed).
3. Machines may consist of springs, cords, rubber, dead weights, and/or other mechanical means of storing potential energy.
4. Air cannons must be adjustable so that the air pressure can be increased/decreased.
5. Machines can be no larger than 10' x 10' x 15' (where 15' is the height) in either the cocked or un-cocked state.
6. Machines must have a firing mechanism that triggers the launch. Team members cannot simply "let go" as a means of initiating launch.
7. In case of misfire, machines must have a safety feature to hold the throwing mechanism while the machine is being loaded. Safety features may be removed once the machine is cocked and loaded and just prior to triggering the launch. This rule is not necessary in the under-14 division.
8. While it is possible to build a machine that launches a pumpkin farther than 350 yards, machines in this competition must be built so that pumpkins do not surpass that range.
9. All machines must be built so that launched pumpkins follow a straight-line forward launch and may not veer any more than 10° from that intended straight-line path.
10. A mechanical device may be used to cock the machine.
11. Machines must have a backstop to prevent them from rolling/moving backwards post launch.
12. Machines must be designed so that launched pumpkins have forward motion only; there can be no chance of a machine accidentally launching a pumpkin behind it.
13. Adults can help build the launcher for the under-14 teams, however, ideas for the design and functionality of the machine must be the teams'.
14. Machines which do not meet all requirements may be disqualified from competition.

SAFETY

1. Mansfield High School and MISD are **NOT** liable for any accident or injury resulting from a machine before, during, or after the competition.
2. All team members must sign the waiver stating that they have received, read, and understand the rules and regulations of the Mansfield High School Pumpkin Chunkin competition. If the waiver is not signed by all members of the team, the team will be disqualified.
3. Only spotters and Pumpkin Chunkin staff will be allowed in the landing lot; team members and spectators must stay behind the firing line.

4. Team members standing in the firing zone must wear eye protection.
5. Machines which cause pumpkins to be launched in any direction other than the intended forward direction will be immediately disqualified.
6. Teams must ensure the area is clear when cocking and loading in case their machine misfires.
7. If any team member begins acting in a manner deemed unsafe by the event staff, the entire team will be immediately disqualified from the competition and will be required to leave the premises.
8. Teams who violate safety rules will either forfeit their longest shot or may be disqualified.
9. To ensure the safety of all teams and spectators, should any potentially unsafe situation arise, the event director retains the right to make disqualifications as he/she sees fit.

COMPETITION

1. All launchers must be in the holding area by 11:30am on the morning of the competition.
2. Teams may deliver their machine in a vehicle to the launch site, but then must move their vehicle from the parking lot.
3. The distance competition will begin at noon. The accuracy competition will follow.
4. The Mansfield High School senior class will provide pumpkins, which will remain unaltered (except identification markers).
5. Pumpkins will weigh no more than 5 pounds and no less than 3 pounds.
6. For both competitions, teams will have 3 competition launches. Competition launches may be disqualified or forfeit, per rules and regulations. Decisions to disqualify or forfeit a launch will be made by the competition director.
7. Changes to the launch rules may be proposed by the competition director, but will only be implemented if (a) necessary for safety or (b) voted on by ALL participating teams.
8. Decisions of the competition director are final.
9. Machines must be able to be cocked, loaded, and ready to fire within 3 minutes. Teams unable to launch within the allotted 3-minute window will be skipped. A team who surpasses the allotted 3 minutes a second time will be forced to forfeit their launch.
10. Teams may not launch until the spotters in the landing lot have indicated they are ready and the competition director has given the firing order.
11. No more than two team members may cock a machine.
12. No part of the machine shall cross the firing line. If, during any competition launch, the machine crosses the firing line, that shot will be forfeit from the team's 3 competition shots.
13. Pumpkins **cannot** launch farther than 350 yards.
14. Launched pumpkins must land in the landing lot. Pumpkins that do not land in the landing lot will be forfeit at the cost of one of the 3 competition launches.
15. All pumpkins fired must remain intact until they impact the ground; a launch wherein a pumpkin breaks apart prior to landing will be disqualified from the team's 3 competition launches.
16. All machines must be removed in their entirety within two hours after the event.

17. Teams are responsible for clean up in the holding and launch zones after the competition.
18. In the under-14 division, adults are allowed to help unload and set up, however, only team members may operate the machine in the competition.

DISTANCE COMPETITION

1. All divisions may compete in the distance competition.
2. Launches will be ranked by yardage, where the winner is the team with the most yardage in a qualifying competition launch.
3. Yardage will be determined based on the landing site of the pumpkin. The landing site is defined as the place where the pumpkin is spotted hitting the ground, not where it may have rolled or bounced to. Designated Pumpkin Chunkin spotters will mark the landing site for each competition launch.
4. The yardage of competition launches will be measured by Pumpkin Chunkin staff and will be taken as the component of range that runs parallel to the side of the MHS building, where range is the displacement from the launcher's position on the firing line to the pumpkin's spotted landing site.
5. Ties will be broken with the yardage of the teams' second (or third) best shots. Should a tying team's other two competition launches be marked as forfeit or disqualified, that team will lose the tie. Should *both* tied teams have their other two competition launches marked as forfeit or disqualified, the teams will launch another pumpkin for a tie-breaker.

ACCURACY COMPETITION

1. All divisions may compete in the accuracy competition where the goal is to land as close to a target as possible.
2. Launches will be scored by proximity to target.
3. The event staff will measure the displacement between the landing site and target to calculate the score of each competition launch. The displacement in yards will be the score; for example, a pumpkin that lands 20 yards from the target will be given a score of 20.
4. The event director will make the final decision on all competition launch scores.
5. Any competition launch that hits the target will be considered "accurate" and will have a score of zero (0).
6. Launches more than 50 yards from the target will be maxed out and given a score of 50.
7. Disqualified or forfeit launches will be given a score of 50.
8. All 3 competition launch scores will be averaged and the team with the lowest average score wins.
9. Ties will be broken with an additional launch. Should the tie-breaker result in another tie, the process will repeat.
10. The target itself is to be determined.
11. Teams may place the target wherever they wish, so long as their machine is at least the minimum required distance away. For community teams, target must be at least 100 yards from the firing line; for MHS student teams, target must be at least 50 yards from the firing line; and for under-14 teams, the target must be at least 12 yards from the firing line.