

---

# Catapult

## A Team of Up to 3

---

---

1. **DESCRIPTION:** Prior to the tournament, teams construct and calibrate their own free standing (not hand held) catapult device that must be capable of "lobbing" a tennis ball at a target placed in 7 meters.

### 2. THE COMPETITION:

- A. Teams must design, build and bring their own free standing (not hand held) catapults to the tournament.
- B. Teams without proper eye protection must be immediately informed and given a chance to obtain eye protection if time allows, otherwise they will not be allowed to compete and scored as a no-show.
- C. Launch force must be provided by gravity or elastic solids (such as springs, rubber bands, etc.). The last point on the device touched by the tennis ball may not be more than 50 cm above the ground before, during or after starting.
- D. Each device should be designed and built by the students (adult construction assistance is OK).
- E. Each device should be designed to operate safely at all times. No points will be awarded for design.
- F. The device will sit on a level area of ground and fire at the target area that will also be at ground level. The target area will be a sand pit of at least 1 meter in diameter. A small object level with the sand will mark the center.
- G. The distance from the "foul line" to the center of the target will be announced at the start of the competition. Students may place their catapult at any point behind the foul line up to 2 meters.
- H. The event could take place outside!

### 3. SCORING:

- A. Each team will have a one-shot practice round after which they will each shoot at the target twice.
- B. The distance from the target will be measured after each shot, including the practice shot and announced to the team to allow them to make adjustments.

- 
- C. The cumulative distance after two shots will be the team's score. **The smallest score wins, a score of zero is the best.**
  - D. The distance from the center of the target will be measured to the tennis ball's initial point of impact as determined by the judge. Tennis balls landing outside of the sand pit area will also be measured according to the initial point of impact as determined by the judge.
  - E. Tennis balls hitting the target on initial impact will receive a score of zero.
  - F. No tennis balls should be shot before or during the catapult event except during the specified practice round or actual competition.
  - G. Each team must bring their catapult to the competition site and leave it there for safekeeping until their turn. This rule is meant to provide safety and fairness so teams will not be practicing during the day of the competition.