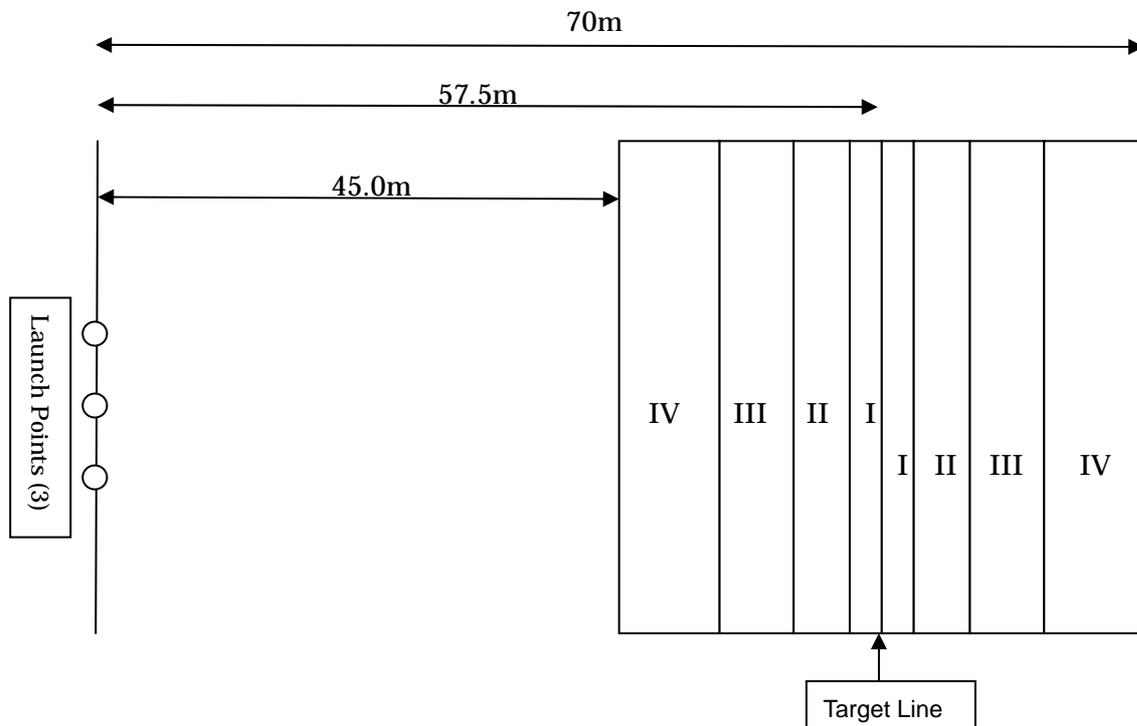


APRSAF-15 WATER ROCKET EVENT: Rules for Launch Competition

1. APRSAF-15 Water Rocket Launch Competition will be held at the University of Pedagogy, Ha Noi, Vietnam. All competitors should make their water rockets and launch them at the designated places (See map and layout below).
2. All materials to make and launch water rockets, including 1.5-liter PET bottles, tools, nozzles and launchers, will be provided by the organizer.
3. Each competitor should make 2 rockets, one as the main rocket and the other as a back-up.
4. The competitors are encouraged to be creative in designing nose cones and fins of their water rockets.
5. At the time of launch, each competitor may adjust the volume of water. Within the maximum limit to be notified by the organizer, the competitors may also adjust the air pressure.
6. Each competitor will be given an opportunity to conduct one test launch.
7. Each competitor will be given opportunities to conduct 2 launches.
8. The score is determined by the impact point, or the point where the water rocket makes the initial contact with the ground. The highest score is 100 points per launch, which will be given if the rocket hits the target point of 57.5 m from the launcher, or the impact point is within the range of $\pm 1.5\text{m}$ from the target point (Zone I). Less points will be given if the impact point is farther away from the target point as indicated below:
 - a. Zone I: 56.0-59.0m: 100 points
 - b. Zone II: 53.5-56.0m and 59.0-61.5m: 80 points
 - c. Zone III: 50.0-53.5m and 61.5-65.0m: 60 points
 - d. Zone IV : 45.0-50.0m and 65.0-70.0m: 40 points



9. If the impact point is exactly on the zone marker, i.e. the line between two zones, the points for the zone closer to the target line, i.e. the middle of Zone I, will be awarded.
10. If the impact point is outside the dedicated zone, i.e. Zones I, II, III and IV, no point will be awarded.
11. There will be 3 launchers set up at 3 m apart from each other. The organizers will assign one of those 3 launchers to the competitors for each of their launches.
12. The organizers will announce the maximum level of air pressure that must be observed by the competitors. The competitors will be allowed to adjust the following: i) launch angle; ii) launch direction; iii) volume of water; iv) air pressure up to the maximum level to be announced by the organizers.
13. A competitor who scores the most points after two launches will be declared the winner of the Launch Competition.

LAYOUT of the competition site [TO BE INSERTED IN DUE COURSE]