

APRSAF-21 Water Rocket Event – Rules for Launch Competition

1. APRSAF-21 Water Rocket Launch Competition will be held at Nihon University Funabashi Campus on Sunday 30th November 2014. All competitors will make their water rockets at the same location.



Figure 1: Nihon University Funabashi Campus
7-24-1 Narashinodai, Funabashi, Chiba, Japan 274-8501

2. All materials to make and launch water rockets, including launcher and air pump, will be provided by the organizer. Pre-made materials or launchers brought in by participants will not be allowed for the competition.
3. Each competitor should make two (2) rockets. Each student will receive:
 - a. Six (6) 1.5 litre PET bottles
 - b. Soft Plastic sheets
 - c. Tape
 - d. Scissors
 - e. Penknife
 - f. Ruler
 - g. Plasticine
4. The competitors are encouraged to be creative in the design of the nose cones and fins of their water rockets.
5. The launch aims at precision flight of the rocket. A target will be placed with the centre 80m from the launcher (see Figure 2 below).

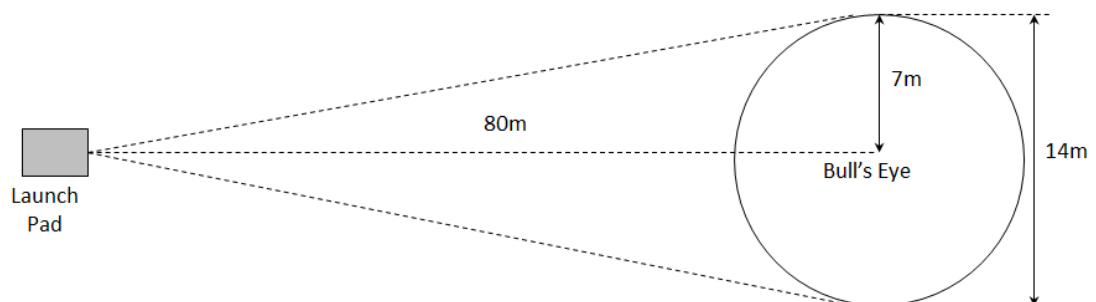


Figure 2: Water rocket launch and target site setup plan.

6. The distance will be measured from the center of target to the point of impact. The rocket that lands closest to the target center get the best score.
7. During the competition, each competitor will be given opportunities to conduct two (2) launches. Exact distance from the point of impact and the center of target will be measured. The result of the best launch will be recorded.
8. Each competitor will be given a voucher to conduct one test launch prior to the competition.
9. In order to reduce the possibility of error. The competitors will draw lots of their launching sequence and assigned with the respective launchers. In this way, they can practice with the assigned launchers during the trial launching.
10. There will be three (3) launchers, and the competitor will launch one (1) rocket at a time. The other 2 competitors can prepare their rockets and wait for their turns.
11. At the time of launch, each competitor may adjust the volume of water, air pressure, launch angle and launch direction. There is no limit on water volume but air pressure must not exceed 80 psi (5.516 bar).
12. The competitor who achieves the best score, i.e. the best score of the 2 launches as stated in item 7, will be declared the winner of the Launch Competition.
13. In case of a draw, the two launches will be taken into consideration to determine the winner between the competitors.