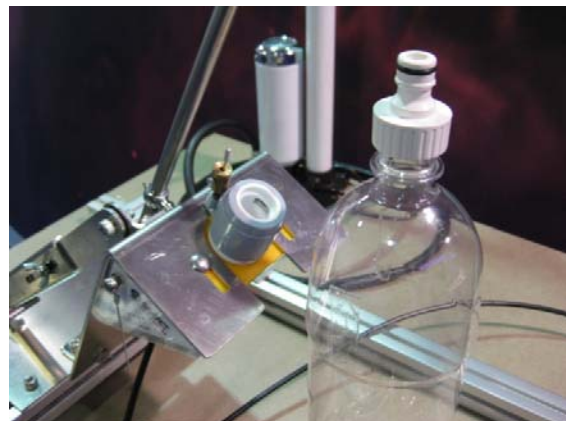
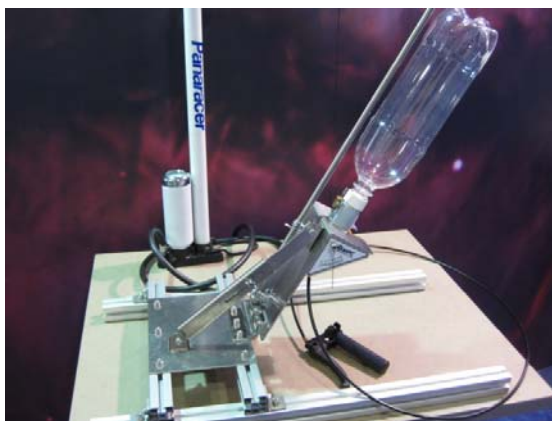


## APRSAF-17 Water Rocket Event – Rules for Launch Competition

1. APRSAF-17 Water Rocket Launch Competition will be held at Cross Keys Reserve, Strathmore, Melbourne, Victoria, Australia (Google maps lat -37.74459, long 144.93044 East) on Sunday 21<sup>st</sup> November 2010.



2. All competitors will make their water rockets at the Victorian Space Science Education Centre (VSSEC) and then move to the launch site.
3. All materials to make and launch water rockets will be provided by VSSEC. JAXA launcher and hand pump (as shown) will be used for the competition.



4. Each competitor should make at least two (2) rockets. More rockets may be made for test launches. Each student will receive:
  - a. Six (6) 1.5 litre PET bottles
  - b. Plastic sheet
  - c. Card
  - d. Tape

e. Plasticine

g. Stanley knife

f. Scissors

h. Ruler

5. The competitors are encouraged to be creative in the design of the nose cones and fins of their water rockets.
6. Each competitor will be given one (1) nozzle as shown. Each competitor is responsible for their nozzle and can keep it at the end of the competition. Additional nozzles will be available for sale.
7. The launch aims at precision flight of the rocket. A Mars target will be placed with the centre 60m from the launcher.
8. The distance will be measured from the centre to the point of impact. The rocket that lands closest to the target centre gets the best score.
9. 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 100psi (7 bar).
10. Each competitor will be given an opportunity to conduct a few test launches prior to the competition.
11. During the competition, each competitor will be given opportunities to conduct two (2) launches. The result of the best launch will be recorded.
12. There will be one (1) launcher, and the competitor will launch one (1) rocket at a time. The organizer will provide the launchers for the competitors for each of their launches.
13. The competitor who achieves the highest score, i.e. closest to the centre of the target, after two (2) launches will be declared the winner of the Launch Competition.
14. If more than one (1) competitor achieves the top score, the scores of the second launches will be assessed to declare the winner.