



## *Category A: Paper Planes*



# Competition Category A



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# Challenge



Students are to make (6 paper airplanes) to participate in 3 missions (Endurance, Precision and Acrobatics) and another plane to decorate it for Best Aesthetic Award within 60mins



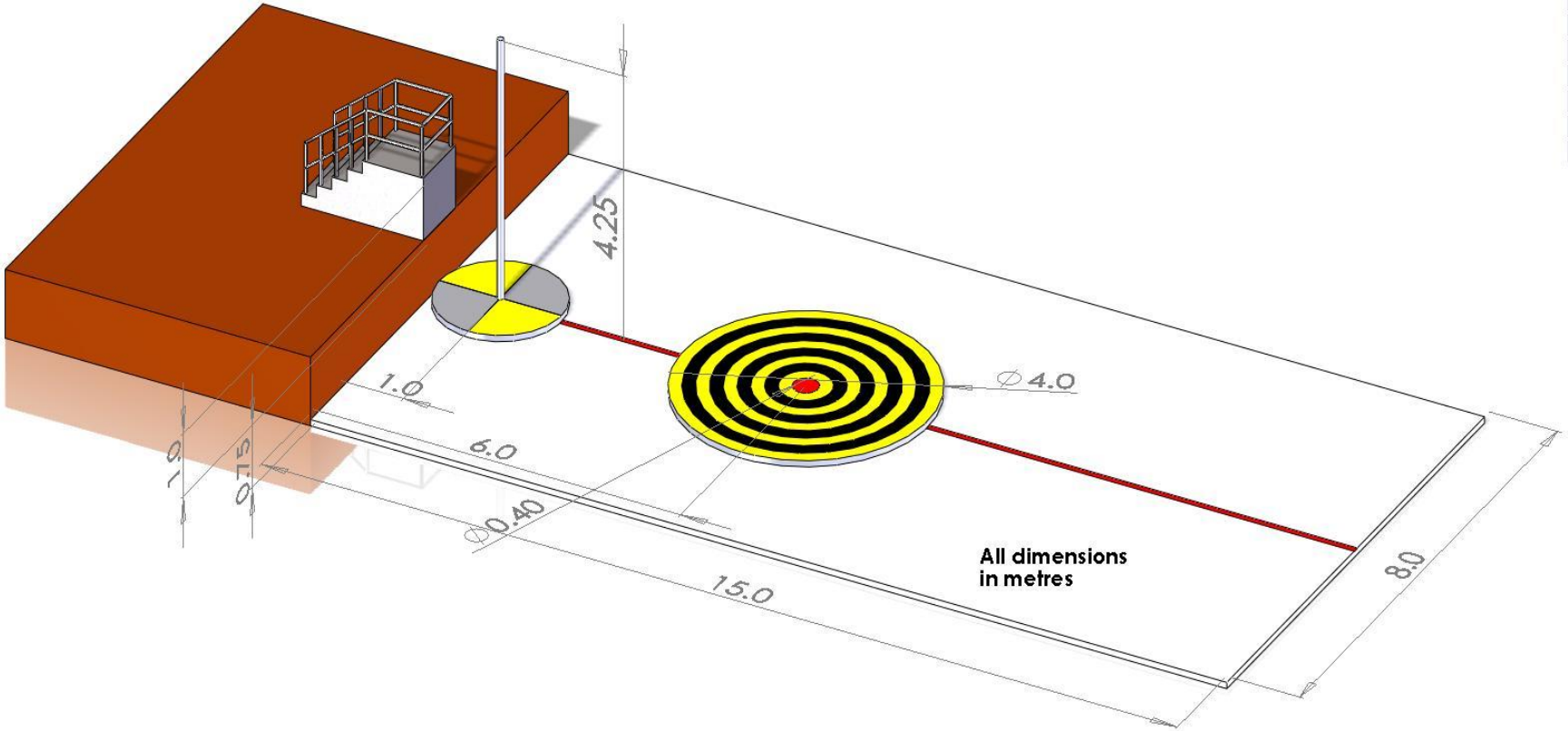
# Missions



- Endurance – Challenge is to achieve the longest flight time.
- Precision landing – Challenge is to achieve the closest landing to target.
- Acrobatics – Challenge is to achieve the most loops around a pole.



# Competition Setup



# Rules and Regulations



1. Each team consists of **two** to **three** students.
2. The team members must be from the same school at the time of the competition. Students graduating in Year 2009 cannot register as the competition is held in March 2010.
3. Each team is to make **TWO (2) same paper planes for each mission as follows:**
  - a. Endurance – longest flight time
  - b. Precision landing – closest landing to target
  - c. Acrobatics – most horizontal loops around a pole
4. In addition to the 6 planes folded for the 3 missions, they need to fold an additional plane and decorate it to win the Best Aesthetics Award



# Rules and Regulations



5. Paper planes will be made according to the following rules:
  - a. Each paper plane is made from no more than one standard 80 GSM A4 size paper provided by the SAFMC officials. Use of own paper is not allowed.
  - b. Crayons, colour pencils and markers, together with small amount of sticky tape, paper clips, stapler or glue may be used but will not be provided. No other materials allowed.
  - c. The tape may be cut up into smaller pieces and use to hold down folds only. The tape is neither allowed to use for laminating a surface, nor used as a control device such as a trim-tab or flap.
  - d. No external propulsion (rubber bands, electric RC motor etc.) allowed. Paper planes can only be launched by hand and unassisted (by catapult etc)



# Rules and Regulations



- e. Crushed paper is not allowed to be used as a paper plane for the competition.
- f. Paper once cut and detached from the sheet of A4 paper, cannot be re-attached back to the paper plane by any means (eg using sticky tape, paper clips etc). This is to prevent the use of more than one sheet of A4 size paper for one paper plane.

**For a more complete list, please refer to the [challenge booklet](#) and [www.safmc.com.sg](http://www.safmc.com.sg)**



# CAT A Scoring System



- **Endurance Mission**
  - **flight time** measured from the moment the paper plane leaves the thrower's hand to the moment the paper plane first touches the floor or any other object. The best flight endurance score is the average score of the 3 attempts.
- **Precision Mission**
  - **For the team whose paper plane is able to land nearest to the centre of the target patch on the landing strip.** The precision point of the paper plane is awarded based on the position of the nose of the paper plane on the precision target patch. Target patch consists of 10 circular zones ranging from 2 to 20 points. The best precision score is the average score of the 3 attempts.
  - Points are awarded based on the position of the nose of the landing paper plane. The final position after the plane glided on the floor after the nose touches the ground is not taken into consideration.
- **Acrobatic Mission**
  - For the team whose paper plane is able to make the **most number of loops** (to the nearest quarter-loops). The acrobatics point of the paper plane is the awarded based on number of quarter-loops loops the paper plane flew around a pole before it touches the floor or any other object. The best acrobatics score is the average score of the 3 attempts.



# Awards



	<b>How do I/we win that?</b>	<b>Weightage for the Championship Award</b>
<i>Championship</i>	<b>Overall Champion</b>	--
<i>Endurance</i>	<b>Longest flight time</b>	20%
<i>Precision</i>	<b>Highest point obtained for landing close to the target</b>	20%
<i>Acrobatics</i>	<b>Most number of loops around a vertical pole</b>	10%
<i>Aesthetic</i>	<b>Most artistically decorated flying machine</b>	0%
<i>Creativity</i>	<b>Best innovative and original flying machine design</b>	15%
<i>Theory of Flight</i>	<b>Best knowledge in aerodynamics principles in the fabrication of the paper airplanes</b>	15%
<i>Presentation</i>	<b>Best exhibit creativity, fluency in the presentation of their team's work</b>	15%
<i>Microsoft Flight Logbook</i>	<b>Best capture of learning journey (photos, videos, blogs etc) with Microsoft Live@edu</b>	5%

