



## *Category B: Un-powered Glider*



# Competition Category B



- Challenge
- General Rules & Regulations
- Awards
- Trial Venue & Dates

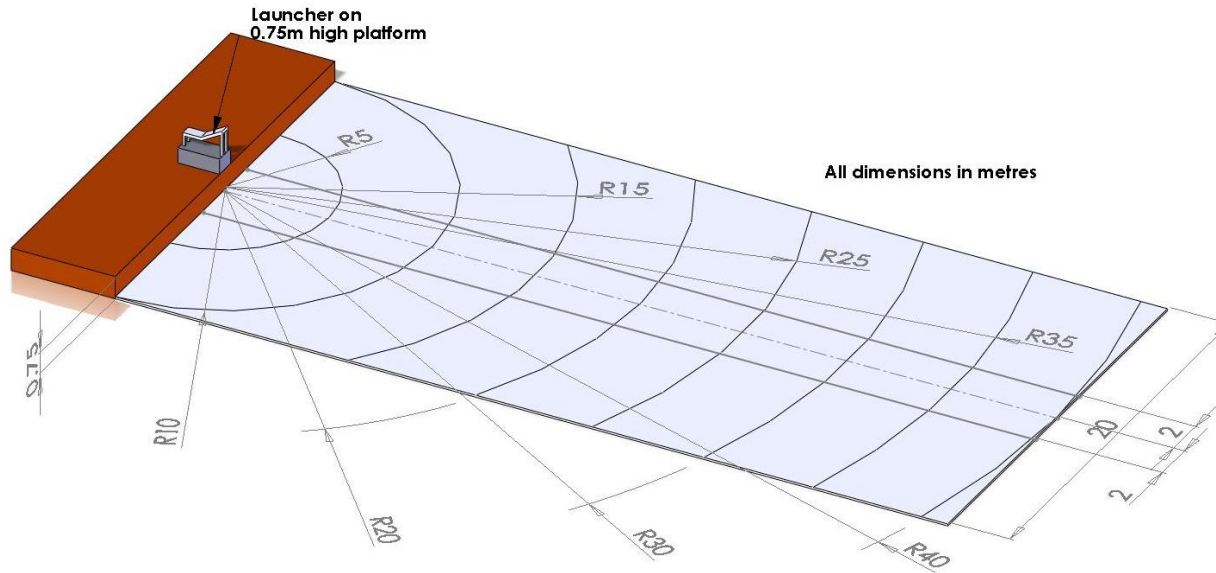




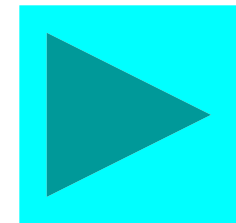
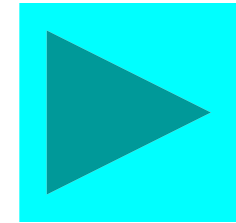
# Competition Category B

## Challenge

- Design and build an un-powered glider.
- Bungee-launched from a launcher.



# Competition Category B





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## General Rules & Regulation

- $\leq 5$  students (same school, not graduating in 2009).
- No COTS model/parts allowed.
- Wing span between 0.5m to 1.0m.
- Launch via glider attachment (45g).
- No balloon & airship design allowed. No gaseous substance lighter than air allowed.
- Submit two 4R sized photo during presentation. No major changes to glider design after presentation.
- Teams allowed to bring two **IDENTICAL** gliders into the competition hall.

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



# Competition Category B



## Awards

- Best Range (25%) – Furthest distance from launcher tip
- Best Track\* (10%) – Shortest distance from launcher centreline (Min range of 10.00m)
- Optimal Performance\* (10%) – Highest OP value
- Aesthetic (0%)\* – Most artistically decorated
- Most Creative (15%) – Innovative & original design
- Theory of Flight (15%) – Sound & appropriate application of aerodynamic design principles
- Best Presentation (20%) – Fluency, confidence & flair
- Microsoft Flt Logbook (5%)\* – Capture learning journey
- Championship – Overall excellence



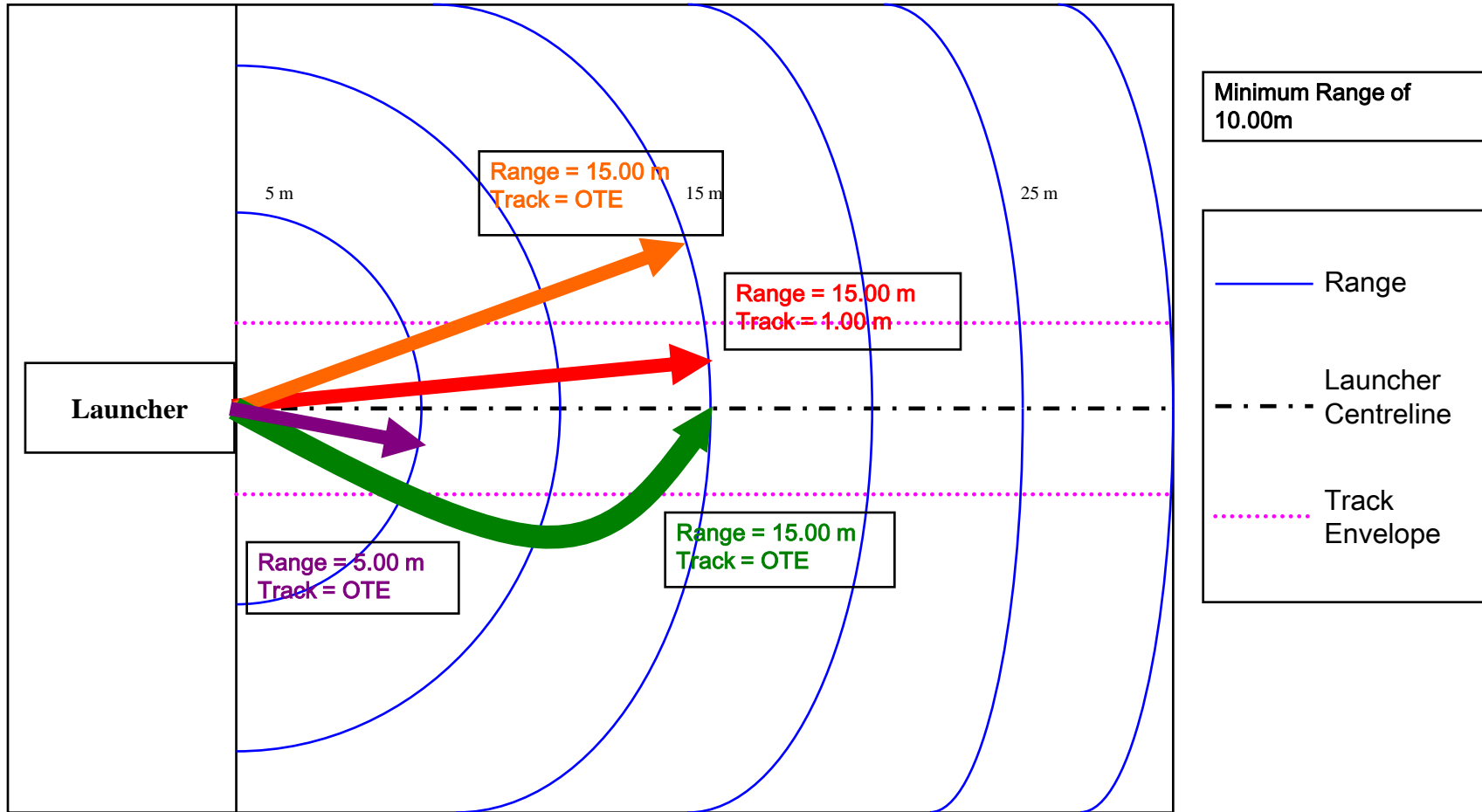
\* - denotes new awards for SAFMC 2010





# Competition Category B

## Best Range & Best Track





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## Optimal Performance

Optimal performance for each attempt (for each team) is obtained with the following equation:

$$OP = \left( \frac{\textit{Glider Weight for the Attempt}}{\textit{Heaviest Glider for the Session}} \right) \times \left( \frac{\textit{Glider Range for the Attempt}}{\textit{Best Range for the Session}} \right) \times 100$$

Optimal performance scoring will be recorded after each of the 2 sessions. The team with the highest value will win this award (Maximum value of 100).



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## Q & A

