

## Rules & Regulations for National Olympics

The Skimmer Olympics offers teams an opportunity to engage in a friendly competition with students from other cities using SAE International's – *A World In Motion*® Skimmer program.

### **Materials & Vehicle Specifications:**

1. Skimmers in the competition must be constructed at the competition venue, on the day of the event using materials supplied only in an official Skimmer kit. All materials will be made available for Student team use by the organizers.
2. Teams may build multiple Skimmers to use in different events.
3. Only one sail per skimmer should be used by the teams as propulsion system.
4. Different sail sizes can be used for different events.
5. No propulsion system besides the Skimmer sails should be used.
6. The test vehicle size should be as specified in the manual, sail size can differ.
7. Teams are not allowed to use any external material for concept preparation for presentation round. Any such external usage if found will lead to the elimination of team.

Teams, however will be allowed to use external material for demonstrating the concept in front of the Judges. E.g. Tub with water, Wooden ramps, Tables, Rope, etc.

8. Tampering of hull will not be allowed for the event.

### **Race Lanes:**

1. The floor or Table of the Race lane should be made from PVC Floor Coverings commonly known as Vinyl Flooring (Residential or School flooring material) or with similar surface finish. No other surfaces like rubber matt, etc. can be used. EEB committee to certify the floor for National event.
2. In case the test surface has a high friction, the Track Judges may sprinkle Boric Powder or the Talcum powder to reduce the same. The Quantity of powder sprinkled will be totally at the discretion of the Track Judges.
3. Teams will have to perform on the assigned race lane for the competition. This can be either team specific lane assignment or event specific lane assignment.
4. The race lane will be 3 meters length by 2 meters wide. For all events, points will be awarded after the vehicle comes to a halt or stops for >3 sec, except for the speed event where the stop time will be noted/recorded at the 1m mark.
5. For the speed event, if the vehicle does not cross 1m mark the attempt will be declared invalid.
6. During any attempt by the team, if the skimmer does not move from the start point after release and keeps on tipping, the attempt will not be counted and the team will be given chance to inspect their skimmer again.

Minor repair will be allowed and should be done in front of track judges (no external help allowed). If the Skimmer is found to tip regularly, the event will be disqualified for the team.

7. If a skimmer leaves the confines of the lane, points will be awarded at the location of exit, as per track scoring guideline.
8. While performing on the track, teams will be allowed to replace the adhesive Tape in case the tape is not able to hold the sail motor in place because of the following reasons,
  - a. the Adhesive tape is old & does not have proper adhesive property or
  - b. in case the Adhesive tape loses its adhesive property because of the high ambient Temperature at the venue.

Note : Teams should use the Tape provided by the Track Judges only.

9. Teams will be given three attempts during the competitions. However the teams are allowed to use **ONLY One Skimmer** for taking all the 3 trials for a particular track.
10. Marking system is as in the table given below. Please refer to **Skimmer Olympics – Track Description & Scoring Guide** for specific event scoring details.

Sr.No.	Performance	Skimmer
1	Distance	09
2	Weight (G1)	09
3	Weight (G2)	18
4	Accuracy	10
5	Turn test	10
6	Speed	*
7	Presentation	*
Total		56

- \* (i) **Points will be awarded for the events to decide the best team for the specific event & the best team will be declared Winner for the event category.**
- \* (ii) **Points for events sr.no. 6 & 7 in the table above will not be considered for determining the overall “AWIM Skimmer National champion”.**

#### **Conduct of the Competition:**

1. Points can be achieved in 5 different events. Performance events include speed, distance, weight-carrying ability, accuracy and turn test.
2. Weights for the weight-carrying ability event will consist of 1 (W1) & 2 (W2) washers with total weight of 16gm or 32gm for W1 & W2 ( $\pm 5$  gm) which are provided in AWIM Kit stacked & taped in a cylindrical arrangement and should be fastened securely in the skimmer.
3. Teams will compete to acquire the highest number of total points.

- Only Test Engineer (2 nos) will be permitted at the starting line; one to operate the fan and give directions to other to hold and launch the skimmer.

All teams will be given a specific amount of time to complete their 3 attempts per event. Any trials that are not finished during the allotted time will be forfeited.

### **FAN INSTALLATION GUIDE**

Havells Birdie Fan to be used for the event. The fan angle to be locked at position as seen in the Pictures below.



### **REGULATOR GUIDE**

Only regulators as per below should be used during the event. The regulator should have fixed positions for setting the Fan speed by the teams.

