

EVENT – PUSHPAK

ROBOVEDA'18

In its twelfth edition, ROBOVEDA brings to you, all new event that fuels your desire to fly. This iteration of **PUSHPAK** is the most exciting yet, thrilling arenas, head to head quad copter and tri copter competitions, and close finishes are sure to give an adrenaline rush. May the force be with you.

PROBLEM STATEMENT:

Design a manually controlled aero vehicle (quad copter / tri copter / rc plane) to crack the arena in least time, avoiding penalties.

SPECIFICATIONS OF THE ROBOT:

1. Maximum of 4 motors will be allowed.
2. Propeller diameter should not be greater than 10 inches.
3. Battery weight should not be more than 350 gm.
4. Only electrical motors are allowed.
5. Use of stabilization board and programming assistance in receivers is prescribed.
6. Only two members of a team are allowed near the arena during the play. Only one member is allowed to control the quad copter, while the other member can give the instructions.
7. No Readymade quad copters are allowed.
8. No metal propellers should be used.

Note: Diameter of hurdles will be around 1meter so it is suggested for the participants to bring the aero-vehicles of diameter below 80cm.

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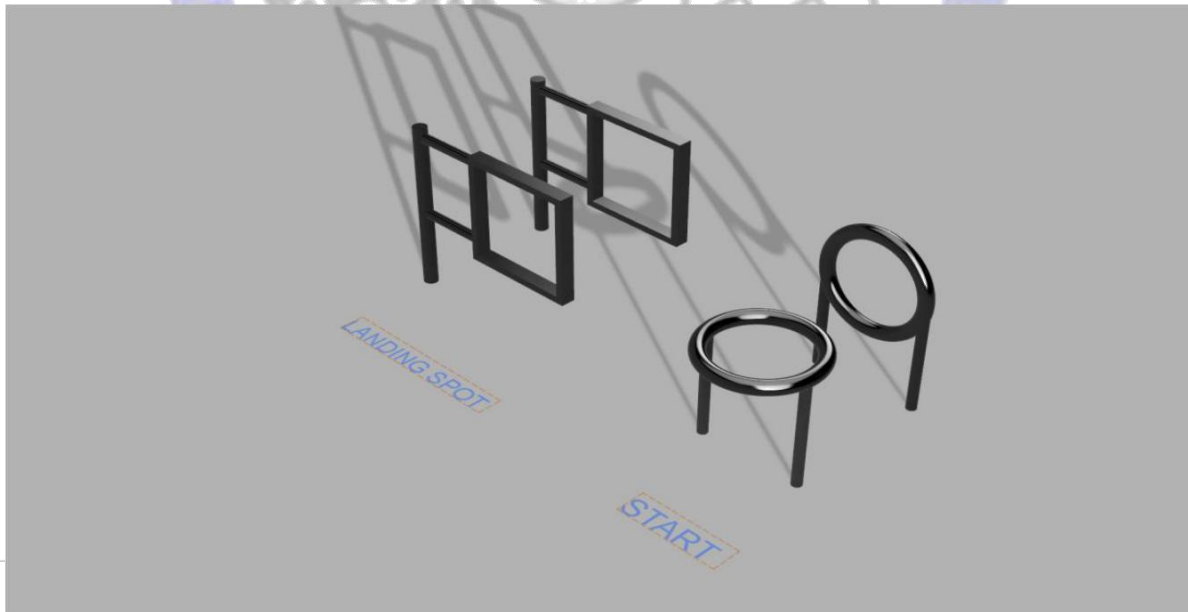
QUALIFYING ROUND:

1. During qualifying round, one team will participate at a time.
2. The drone should fly a minimum height of 30 feet. It should pass across the loop provided at specific heights (which would include minimum of 6 feet).
3. There will be two loops and two rectangular shells. The loop diameter is 1.0 meter and the shell with dimensions (100x80 cm, 90x70 cm). After passing through the loops and shells the drone has to land at a specific place.
4. The winner is judged by a circuit race of 2 laps.
5. Total time taken by participant to reach the finish line with penalties will be counted.
6. Arena will be explained to the participant before the race commences.

JUDGING CRITERIA:

The drone should finish the arena within the time limit, which will be announced on the day of event.

ARENA DESIGN:



Note: The dimensions of arena may not be exactly as shown in the figure. It just resembles the figure shown. The figure shown above is not up to scale.

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RULES AND REGULATIONS:

1. A team can consist of a maximum of 4 members.
2. Members of different institutions can form a team.
3. Only 2 members of a team are allowed to stay around the arena (for controlling and assisting) and a team is allowed to participate with one drone only.
4. Any kind of damage to the arena will not be entertained, and if done, the robot will be immediately **disqualified**.
5. All the required accessories have to be brought by the participants.
6. No technical assistance will be provided by the coordinators during the time of the event.
7. No practice flights will be allowed.
8. Human interference (e.g. touching the drone) during the game will be charged.
9. If a participant does not comply with the rules of the event, the robot will be disqualified from the event.
10. Misbehavior of any kind will not be tolerated and the team will be subjected to **disqualification** from **Roboveda**.
11. The drone should not harm the field. Constantly harming the arena may lead to **disqualification**.
12. No external power supply will be provided at the time of event.
13. **Lego kits** are strictly prohibited and will lead to **disqualification**.
14. **RC kits** are allowed.
15. Only **undergraduates** are allowed to participate in the event professionals are strictly not allowed.



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NOTE:

1. All participants will be given Certificate of Participation.
2. Winners and runners will be given Certificate of Merit.
3. Same member cannot be a member of two different teams for the same event.
4. In case of any discrepancies, the decision of the coordinator and the event head shall be the final and no further arguments shall be entertained.
5. A robot is allowed to participate only once in that particular event.
6. We request the participants not to assume anything without contacting us.
7. Team Roboveda is not responsible for any kind of damage to your robot.
8. All participants must bring their college ID card.

In case of any discrepancies, the decision of the coordinator and the event head shall be the final and no further arguments shall be entertained.

****THANK YOU****

EVENT COORDINATORS:

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