



FOR
ROBOVANZA 7.0

DRONE RACING

THE MANUAL TO MASTER YOUR METAL



ROBOTICS_CBIT

1.GAME:

- The challenge is to design and build a drone within the specified dimensions that flies through the obstacle course in the least possible time!

2.GAME FIELD:-

NOTE: Game arena will be revealed on the during the day of event

3.DRONE SPECIFICATIONS

- 3.1. A maximum of 4 motors will be allowed.
- 3.2. The propeller diameter should not be greater than 5 inches.
- 3.3. Only electrical motors are allowed.
- 3.4. The use of a stabilization board and programming assistance in receivers is not allowed.
- 3.5. No ready-made quadcopters are allowed
- 3.6. No metal propellers should be used.

NOTE: The diameter of the hurdles will be around 1 meter. So it is suggested to the participants to bring quadcopters of diameter below 78cm.

4.POWER SUPPLY:

- 4.1. The voltage between two nodes of the battery should not exceed 16.8 Volts.
- 4.2. The battery should not be overcharged.
- 4.3. No external power supply will be provided at the time of the event so get your batteries fully charged.
- 4.4. A spare battery is highly recommended.

5.GAME PLAY :

- Pre-Game setup:
- The Drone will be evaluated on various parameters such as design, construction, and innovation.
- Every aspect of the Drone will be observed for scoring which includes the connection of various parts, fixing of components, materials used, aeromodelling, etc.

6.PRIZE POOL:

The Prize Pool of RoboVanza 2K24 is INR 30,000/-

7.ROUND-1-QUALIFIER:

- 7.1.Each Team will be Getting 2 laps.
- 7.2.The timer will be started just after take-off and will be stopped just after landing.
- 7.3.The time of each lap is recorded and the best lap is considered.
- 7.4.A maximum time of 30 seconds will be given between laps.
- 7.5.In case of a crash, the course should be started from the checkpoints and time will not be stopped.
- 7.6.A technical break of 2 minutes will be given with a penalty if needed.

8.ROUND-2-DECIDER:

- 8.1. The top 6 teams from the qualifiers round will proceed to this round.
- 8.2. The racecourse for the deciders round will be changed from the qualifiers round.
- 8.3. This round is not just about speed but also about freesty
- 8.4. Extra points will be awarded based on the difficulty level of the freestyle move as per the opinion of the judges.
- 8.5. The judging criteria for this round will be announced on the event day.
- 8.6. The judges' decisions shall be treated as final and binding on all.
- 8.7. The organizers reserve the right to change any or all of the given rules as they deem fit.
- 8.8. These changes, if any, will be highlighted on the website and notified to the registered participants.

9.GAME PARAMETERS:

Game Clock: The game clock starts as soon as the referee commands the beginning of the round and stops as soon as the maximum access time of that round elapses.

- **Flight time:** The flight time will be the official time taken by each drone.

10.GENERAL RULES:

- 10.1. All the required accessories have to be brought by the participants.
- 10.2. No technical assistance will be provided by the coordinators during the time of the event.
- 10.3. No practice flights will be allowed.
- 10.4. Only two members of a team are allowed near the arena during the play.
- 10.5. Only one member is allowed to control the quadcopter.
- 10.6. While the other member can give the instructions.
- 10.7. The usage of readymade drones is not allowed.
- 10.8. Technical time out of 2 minutes can be taken by a team.
- 10.9. Human interference (e.g. touching the drone) during the game will be given a penalty.

11.TEAM RULES:

- 11.1. The team should have a minimum of two members.
- 11.2. Members from different institutions can form a team.
- 11.4 . Only ONE drone is allowed per team.

12.SCORING:

- Scoring will be explained during the time of the event

13.SAFTEY:

- 13.1. Any kind of damage to the arena will not be entertained, and if done, the robot will be immediately disqualified.
- 13.2. The robot should not harm the arena. Constantly harming the arena may lead to disqualification.

14.VIOLATION&DEDUCTION OF POINTS:

- 14.1. Penalties are imposed if the drone touches the border of the track or if skips or replacements are chosen.
- 14.2. Each penalty adds extra time to the total time.
- 14.3. The time added for each penalty shall be declared on the day of the event

15.DISQUALIFICATION:

15.1.If a participant does not comply with the rules of the event he/she will be disqualified from the event.

15.2. Misbehavior of any kind will not be tolerated and the team will be subjected to disqualification from Robovanza.

15.3. Lego kits are strictly prohibited and will lead to disqualification.

15.4.The robot should not harm the field. Constantly harming the arena may lead to disqualification.

15.5. The usage of ready-made drones is not allowed

16.CERTIFICATION POLICY:

16.1. The certificates of participation will be provided to all participants.

16.2. Certificates of merit will be provided to the winner along with the cash prize.

17.OTHERS:

- All participants will be given a Certificate of Participation.
- Members who participated in one team cannot participate in another team for the same event.
- In case of any discrepancies, the decision of the coordinator, Technical Deputies, and the event head shall be the final and no further arguments shall be entertained.
- The robot is allowed to participate only once in that particular event.
- Team Robovanza is not responsible for any kind of damage to your robot.
- We request the participants not to assume anything that is not mentioned in the document without contacting the coordinators or Technical Deputies.
- It's our sincere request to all the participants to go through this rule book thoroughly and not a single point mentioned in the rule book will be compromised under any circumstances.
- We also request you to have a copy of this rule book handy during the event.
- Any kind of misbehavior will not be tolerated and will lead to the disqualification of the team.
- Spot registrations will be accepted for this event

- Every participant should pay the prescribed registration fee before participating in the event.

The registration fee per individual in a team and any changes to it will be announced on the event's website and R&I club's official Instagram handle so please check them regularly.

EVENT HEAD:

- Shaurya-778032024

COORDINATORS:

- Sravani Iruvanti-6301760811
- SriyaPalaparthi-7569150758
- Srilekha Kasha-7416939873