DRONES Competition 2025

Participating Categories

Primary 4th – 6th, Gymnasium, Lyceum, University, Special

(Based on the Categories of the other Robotex Cyprus Challenges)

A. GOAL

The goal of Athletes is to perform a demonstration Drone operation lasting 3 minutes, as well as perform a precision mission to be announced on the day of the competition.

The competitions requires precision in movements and correct calculations.

The regulations are based on the corresponding regulations of the Minoan Robotics Competition (MRC) and have been adapted at various points for the competition in Robotex Cyprus.

B. TEAMS

1. Teams and not individuals participate in the Games.
2. Each group can consist of two (2) – five (5) persons. The regulation applies as in the other Robotex Cyprus challenges for the participation of up to one person of age category X in a team of the next age category X+1.
3. Each team should nominate up to 1 Drone Operator. Only the Operator is allowed in the area of the game. The rest of the team will remain in the waiting area or watch the game from the audience area. If a team does not adhere to the above rule and its members roam the field then the team will be disqualified.
4. The team is allowed to change Operators in every attempt it makes on the track in order for all the members of the team to engage in the sport, but this is not mandatory.
5. For smooth participation in the competition, the coach must necessarily have 1 assistant for each of his 3 teams that will participate in the competition.
6. Each team is allowed to have only one Drone. It is forbidden to change the Drone during the competition.
7. Teams are not allowed to share the same Drone.

C. DRONES CATEGORIES

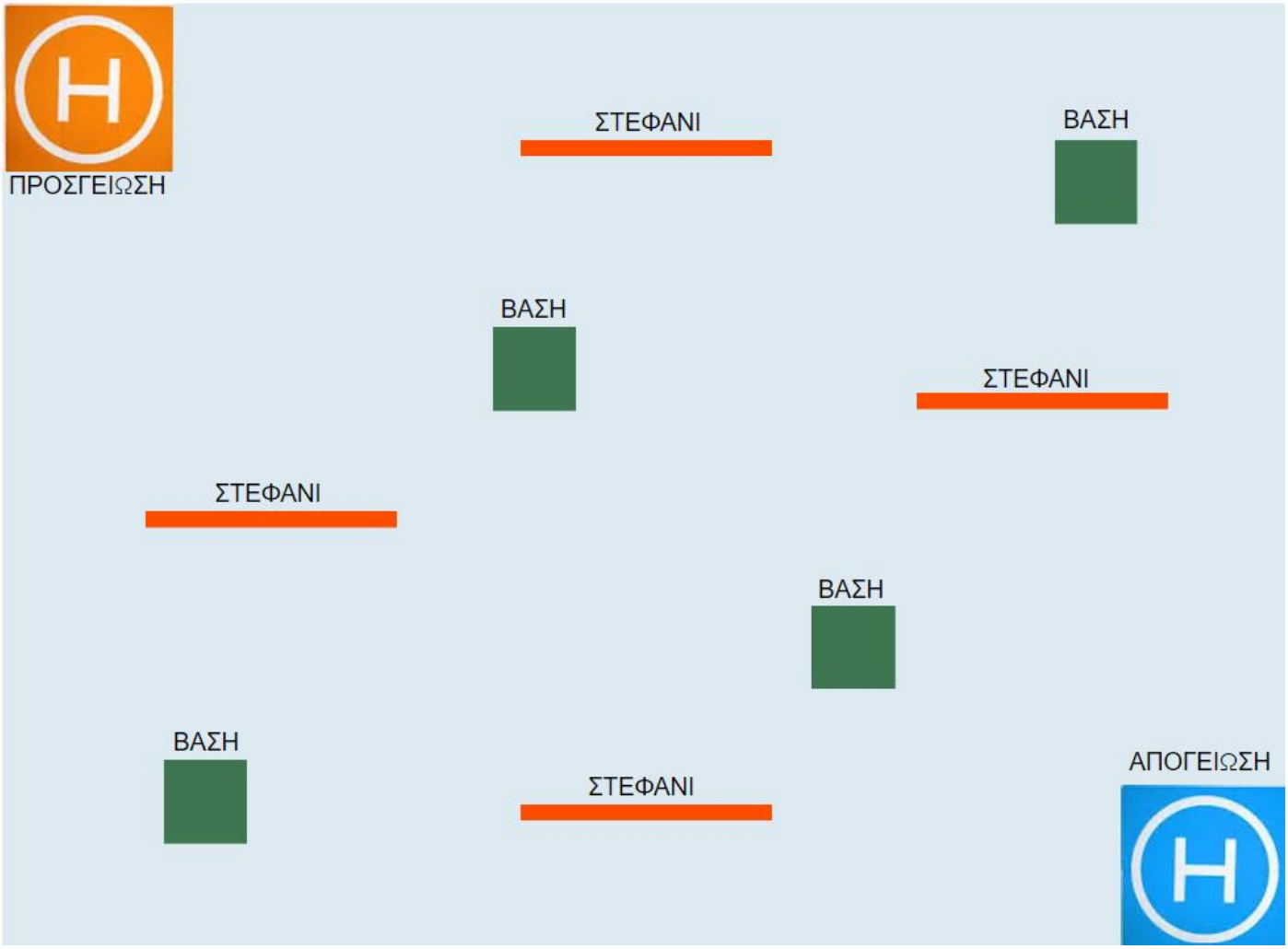
1. There is no limitation as to the type or model of the Drone that can participate in the competition provided that the requirements below are satisfied.
2. During the competition the Drone must be remotely controlled.
3. The maximum dimensions of the Drone with the propellers deployed must not exceed 25 cm Width x 25 cm Length and a maximum weight of 240g including the battery.
4. To confirm the specifications mentioned in the point above, the referees/judges will check the dimensions before the Competition.
5. The Drone should not have sharp edges with the exception of its propellers which should be plastic and not metal.
6. The Drone must not wear or damage the track or pose a threat to spectators in any way.

7. Indicatively the following Drone models are eligible to participate in the competition, the list is not exhaustive: e.g. DJI Tello, DJI NEO, CoDrone, LittleBee, Makeblock Airblock, 3D Printed Mini Drone, DIY Drones etc)
8. The Drone Operator MUST WEAR safety glasses both during the tests and during the race. The glasses must be made available by the Drone Operator.
9. No form or any type of gas is allowed during the Drone take-off.

D. TECHNICAL CONTROL

1. The initial technical inspection will take place on the day of the Games at a place and time to be determined by the organizers.
2. Technical control is carried out before the start of each phase of the Games.
3. Any failure of a team to arrive on time for a technical inspection of their Drone leads to the automatic exclusion of the team from the event.
4. Only the Drone Operator is responsible for presenting the team's Drone for technical inspection.
5. The technical inspection includes the inspection of the Drone according to the conditions described above in the Drone Categories section.
6. In case that teams have Drones that do not meet the above characteristics-and are interested in taking part in the competition, they are requested to contact the Organizing Committee, giving the technical characteristics of the Drone. The Organizing Committee will decide whether the specific Drone will be allowed to participate and in case of a positive decision the registered teams will be informed accordingly and these regulations will be updated accordingly.
7. The Drones are allowed to compete only after passing the technical control. This check will be carried out before the first flight and covers all the points listed above.
8. The Drone must demonstrate its ability to remain at a flight height of 1 - 2 m without human intervention regarding height.
9. The ability to safely control the Drone must be demonstrated by the Drone Operator.
10. Drones must comply with all safety and security requirements.
11. It will be checked if the control number is present on the outer casing of the Drone.

E. DISPLAY SPACE - TRACK



1. The display space is 5m x 5m.
2. On the display space there will be various objects where the Drone can pass through, over, or take off or land on.
3. Objects can be on a stand, on the floor or suspended
4. The number and the layout of the objects will be revealed on the day of the Games.
5. Objects will not be suspended but at various heights from the floor.
6. On the track there can be up to 4 bases with dimensions 0.30 length x 0.30 width and different heights: 0.30cm - 0.60cm - 0.90cm – 1.2m.
7. On the track there can be up to 4 hoops with a diameter of 0.50cm to 0.75cm and in different heights: 0.20cm - 0.40cm - 0.70cm - 0.90cm.
8. On the track there are always 2 points of 0.40cm x 0.40cm each in two opposite corners designated as take-off (starting) and landing (finishing) points.

F. THE COMPETITION

TYPE OF COMPETITION

The competition concerns the demonstration of Drone use and does not in any way cover Drone programming skills. The competition will take place in an enclosed area.

TEAM ATTEMPTS

Each team will have two (2) attempts of three (3) minutes duration each in order to complete the task in the specially designed area.

The two attempts will not be consecutive.

COMPETITION PROCEDURE

At the start of the competition, the teams will have availalbe the **special form with the description of the track assignment**; namely the route that the Drone will have to specifically follow.

Teams will have 1 hour to test their Drones. The time may increase depending on the number of groups.

Members of the organization will take care of the safety of the children and their tests on the track.

After 1 hour has passed:

1. The Drone is placed in the take-off position that exists on the track.
2. The Referee blows the start and finish whistle. The Operator should start the Drone 5 seconds after the whistle. If 5 seconds elapse then 5 points are deducted from the final points of the team.
3. The maximum duration to complete the mission is 3 minutes. If a team exceeds this time the referee blows the whistle, the attempt is terminated and the team receives the points gathered up to that point.
4. The Drone should accurately perform the movements defined in the instructions.
5. The Drone should land accurately on the landing spot.
6. The order of execution of missions on the track should not be shuffled but in the order given in the written instructions and the markings on the track.
7. A landing is considered valid if all landing parts of the Drone make contact with the landing base.
8. The Operator should be able to take control of the Drone at any time in case of an emergency.
9. Teams must always follow the referee's instructions.
10. The referee can cancel any flight considered dangerous and disqualify the team.
11. In case of a completed attempt and given that there is time available then the Operator can take off the Drone again and reverse the direction to collect more points.
12. In cases where the Drone touches the track floor or when the Operator stops the attempt himself or if he catches the Drone himself or when the Drone goes out of the track boundaries then the attempt is stopped and, given that there is still time available, the Operator can start again from the starting point.

13. In case of a failed or aborted attempt, and given that there is still available time to complete the attempt, the Operator may restart from the take-off point until the available time expires.
14. Each attempt of the teams will be completed for all teams before the next attempt begins.
15. The competition finishes when all teams complete their two attempts.

Not allowed:

1. Drones use parts that can harm spectators.
2. Breaking the Drone into pieces or expanding it in any way during the match.
3. The way of performing the missions on the track should not be mixed up but in the order given in the written instructions.

IMPORTANT:

Drones will be reviewed by the judges between the 2 attempts.

GRADING

1. Vertical take-off from the starting point: 20 points
2. Vertical landing at the finishing point: 30 points
3. Landing on the 2 lowest bases 15 points for each base
4. Landing on the 2 highest bases 25 points for each base
5. Pass through the 2 lowest hoops 20 points for each hoop
6. Passing through the 2 highest hoops 30 points for each hoop

BAN A TEAM:

In the following cases the team is excluded from the Sport and will have to withdraw.
Team results are not taken into account and are not included in the list of competition results.

1. If the team's Drone does not comply with the requirements specified in the rules of the Sport and the team refuses to adapt it.
2. If the Team Operator behaves in an inappropriate or indecent manner, curses or provokes or verbally or otherwise attacks teammates, coaches, the referees/judges, members of the Organizing Committee, Volunteers or any person participating or watching the event.

G. WINNING TEAM

For each age group separately:

1. A ranking is made based on the score of the teams in the category.
2. The team with the highest score in any of the two attempts takes first place, the next highest team in score takes 2nd place, etc.

3. In case of a tie, the second-best distance is considered. If a tie still occurs, the third-best distance is taken into consideration. In case that a tie still exists, the teams compete in an additional game to decide the winning team in the category

Applying the practice followed at Robotex Cyprus, a final attempt (best-of-the-best) will be held between the teams with the highest score in each category. For this final round, the teams make only one attempt and a ranking is made to highlight the winning team with the highest score.

NOTES:

The maximum number of players in MINOAN ROBOTSPORTS GLOBAL OLYMPIAD that takes place annually in Heraklion, Crete is only three (3) and the competition is executed based on the rules outlined here.