

DRONES Operation 2026

Participating Categories

Primary 4th – 6th, Gymnasium, Lyceum, Adults

A. GOAL

1. The goal of the competition is for an Operator to perform a demonstration of a Drone operation within a given time, as well as perform a precision mission to be announced on the day of the competition.
2. The competition requires precision in movements and correct calculations.

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. Each team is allowed to have only one Drone. It is forbidden to change the Drone during the competition.
6. Teams are not allowed to share the same Drone.

C. DRONES CATEGORIES

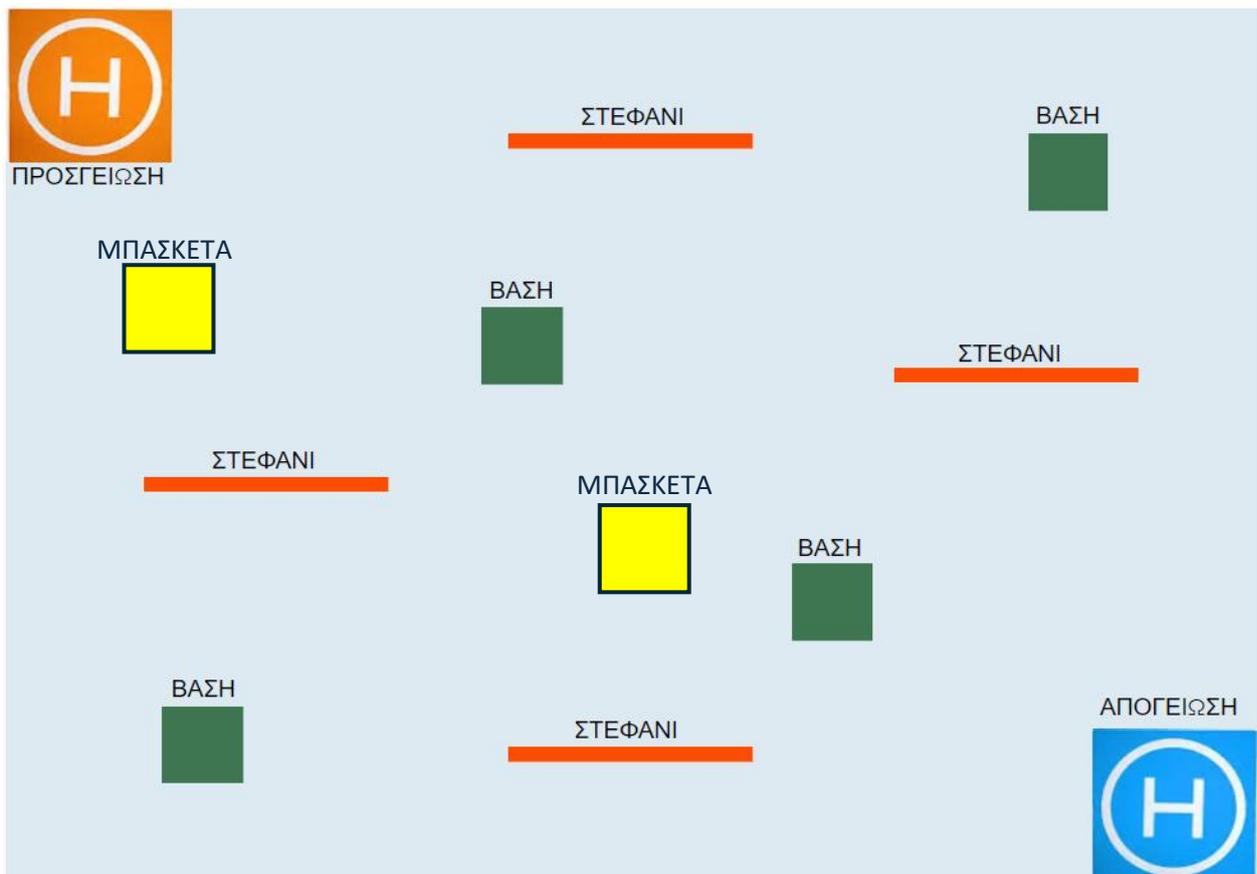
1. There is no limitation as to the type or model of the Drone that can participate in the competition provided that the requirements below are satisfied.
2. During the competition the Drone must be remotely controlled.
3. The maximum dimensions of the Drone with the propellers deployed must not exceed 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 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. 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.
8. 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 attempt and only if the control is successful the team is allowed to participate.
3. Failure of a team to arrive on time for a technical inspection of its 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 characteristics described in "Section C. Drone Categories" and are interested in taking part in the competition, are requested to contact the Organizing Committee at least 15 days prior to the execution of the event 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 Drone must demonstrate its ability to remain at a flight height of 1 - 2 m without human intervention regarding height.
8. It will be checked if the control number is present on the outer casing of the Drone.

E. THE FIELD TRACK

1. The field track is of 5m x 5m dimensions.
2. On the field track 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 competition.
5. Objects will 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 of different heights.
7. On the track there can be up to 4 hoops with a diameter of 0.50cm to 0.75cm of different heights.
8. There are two points on the track of 40 cm x 40 cm dimensions, designated as the take-off point (light blue) and the landing point (orange).
9. There may be up to two basketball-type structures on the track, where the drone will need to push a small plastic ball so that it passes through a small hoop with a net (basket).



Indicative Track Field - Position of the items will be different on the competition day

F. THE COMPETITION

TYPE OF COMPETITION

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

TEAM ATTEMPTS

1. Each team will have two (2) attempts to complete the task.
2. Each attempt will be of three (3) minutes duration.
3. The two attempts will not be consecutive.

COMPETITION PROCEDURE

1. The aim of the team is to collect as many points as possible within the available time.
2. At the start of the competition, the teams will be given the special form with the description of the track assignment; namely the route that the Drone will have to specifically follow.
3. The Drone should accurately perform the movements defined in the instructions and by following the markings on the track.
4. Teams will be given time to test their Drones. The exact time will depend on the number of teams participating in the competition and will be decided by the Organizers.

After the testing time has passed:

1. The Operator places the drone at the take-off position.
2. The Judge blows whistle to indicate the start and finish of the attempt.
3. If a team exceeds the attempt time the Judge blows the whistle, the attempt is terminated and the team receives the points gathered up to that point.
4. A landing on a base is considered valid if all landing parts of the Drone make contact with the landing base. If the landing is made but not all parts of the drone make contact with the landing gear, the Operator may:
 - (a) either start the attempt from the beginning, or
 - (b) proceed to the next point and lose the landing points for that base, or
 - (c) try again to land normally on the same base.
5. Teams must always follow the Judge's instructions.
6. The Judge can cancel any flight considered dangerous and disqualify the team.
7. In case of a completed attempt and given that there is time available then the Operator can take off the Drone again with reverse direction to collect more points.
8. 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 last starting point (blue or orange point, depending whether the drone was on the initial/forward or the reverse direction).

Not allowed:

1. Drones to use parts that can harm the spectators or the track field.
2. Breaking the Drone into pieces or expanding it in any way during the competition.

GRADING

1. Vertical take-off from the starting point: 20 points.
2. Vertical landing at the finishing point: 30 points.
3. Landing on the bases 20: points for each base
4. Pass through the 2 lowest hoops 20 points for each hoop.
5. Passing through the 2 highest hoops 30 points for each hoop.
6. Kicking the ball from its base into the basketball hoop: 50 points for each successful kick.
7. Kicking the ball from its base onto the ground: 30 points for each successful kick.

BAN A TEAM:

In the following cases the team is excluded from the competition 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 competition and the team refuses to adapt it.
2. If the Team Operator or a member of the team or the coach of the team behaves in an inappropriate or indecent manner, curses or provokes or verbally or otherwise attacks teammates, coaches, the judges, members of the Organizing Committee, volunteers or any person participating or watching the event.
3. If the team coach intervenes in any way to support the team.

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 team with the next score takes 2nd place, etc.
3. In case of a tie, the second-best score 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
4. 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.