RULES

holding a tournament in phygital sports discipline "Racing and drones"

Phygital drone racing is a type of competitive activity that combines elements of official sports disciplines of the sport of "drone racing": "Interactive drone racing" and "practical drone racing". A phygital drone racing match consists of two stages:

Digital stage: The game is launched on a game console or personal computer in the LIFTOFF simulator.



Physical stage: Teams go out into the open area and perform practical drone flights, overcoming the obstacles set up.

Target:

Organization of sports leisure activities for tournament participants.

Tasks:

- promotion of a healthy lifestyle, physical education and sports among the tournament participants;
- holding a phygital sports tournament (the "Drone Racing" discipline) among cadets of higher military educational institutions.

Tournament participants and requirements for them

The tournament participants are cadets of higher military educational institutions. One team from a higher education institution can participate in the tournament. To participate in the tournament, a team must have 2 or 3 players (2 playing, 1 reserve).

Competition system:

The competition involves 8 (eight) teams, each consisting of 6 (six) participants (2 main players + 1 reserve).

Participants are allowed to make additional changes to the team rosters in the amount of no more than 1 person in the event of force majeure (injury or illness of a participant confirmed by a medical professional, etc.). Team captains must inform the match referee of changes in the rosters upon arrival at the competition venue. If a team fails to appear, or an incomplete team appears at the competition venue within 5 minutes after the start of the match, the team is awarded a technical defeat and is eliminated from the competition. Substitution of team members between the Interactive Drone Racing and Practical Drone Racing stages is prohibited.

Team competitions are held according to the playoff system with the elimination of the losing team (semi-finals, match for 3rd place and final).

Each match consists of two stages:

Digital stage (Interactive drone racing).

Interactive drone racing matches are held in a 1 vs 1 (one vs one) format: 2 (two) participants in each team. The flight is carried out on the track « Race / Standart / Liftoff Arena / Mexico Wave » . Each participant is given one test flight and two for the qualifying time. The best (shortest) of the times is accepted for the qualifying time. The match consists of one game between the teams.

Physical stage (Practical drone racing).

Practical drone racing matches are held in accordance with the drone racing rules, taking into account the requirements established by the Technical Rules. Each team consists of 3 (three) participants in the match - 2 field players, 1 (one) team member is a substitute and can be substituted in the match in the order determined by the drone racing rules. Each participant is given one test flight and two for the qualifying time. The best (shortest) of the times is accepted for the qualifying time.

The break between stages, designed for the transition between playing areas, is 15 (fifteen) minutes.

The winner of the match, consisting of 2 (two) stages, is determined by the sum of the time in the Digital (interactive drone racing) and Physical (practical drone racing) stages. Penalty points earned by participants during practical drone racing are also counted.

Route requirement

The route is a dedicated area with obstacles installed. The order of passing the route is determined by the organizers.

The obstacles are vertical and horizontal circles with a diameter of about 80-120 cm, raised to a height of about 1-2.5 m, rectangular and arched figures, as well as flags. The obstacles are installed in the order determined by the organizers.

The order of installing obstacles and the order of passing the route does not change during the competition.

Procedure and terms of the competition

Drone racing competitions are held in two stages: trial and qualifying piloting.

At the trial stage, each participant (team) flies the track without taking time into account. The points scored only at the qualifying stages are included in the score.

Only participants and their assistants, members of the panel of judges are allowed to be in the competition area. Each participant can have one assistant allowed into the pilot area.

The winner is the participant (team) that flies the route in the least time and scores the most points.

The competition consists of the following stages:

Preliminary briefing	Briefing for pilots with a tour of the track. Time for questions from the organizers.
Technical inspection	Technical inspection of drones participating in competitions.
Passing the route	Direct piloting
Summing up	Summing up, awarding prizes

During the competition, participants are required to:

- monitor the technical condition of your drone;
- observe safety precautions;
- prepare the drone in advance for participation in competitions;

During the competition it is prohibited:

- to carry out flights without the consent of the organizers;
- go out onto the airfield during flights;
- distract pilots during flights;
- fly over people;
- fly outside the boundaries of the area designated for flights;
- create a danger to the life and health of people through actions or inaction;
- fly a technically faulty drone.

Application for participation in the competition

Team name (UPS RUz) Full name of the team captain	
Full name of team members (no more than 2)	1. Participant 2. Participant

Competition rules for the practical drone racing stage

1. A preliminary briefing is held for pilots on the competition track. The organizers show the track, elements and answer questions.

- 2. Participants provide their drones to judges for technical inspection to obtain admission to participation in the competition. Based on the results of the technical inspection, the drone may or may not be admitted to the competition.
- 3. Participants are divided into groups based on the results of the draw. The composition of the groups and the order of flights are communicated to the pilots before the start of the qualification.
- 4. Pilots must set up their drones at the start (logo on the floor measuring about 50x50 cm) within 1 minute of the judge's command. If a pilot is not ready for the race for technical reasons, he has an additional 30 seconds to fix the problem.
- 5. At the command "Start", the judge starts the stopwatch. The participant must fly the track in a certain sequence, flying over obstacles. The flight of the track ends with landing at the finish line (a logo on the floor measuring about 50x50 cm).
- 6. If the drone crashes during the competition, but there is a possibility of taking off again, the participant can continue the flight. If the drone crashes, the judge does not stop the stopwatch.
- 7. At the end of the stage, a ranking of all the competition pilots is compiled based on the best lap time.

Summing up the competition

A panel of judges is formed to evaluate the results of the competition.

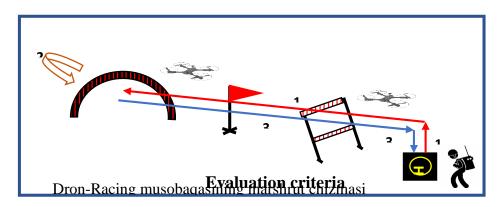
The assessment criteria for completing the tasks are given in the Appendix.

The winners are determined based on the total points for completing the task minus penalty points.

The winners of the competitions are awarded with diplomas, certificates and other valuable prizes.

The quadcopter (drone) must perform the following sequence of actions:

- 1. Take off from the starting point.
- 2. Fly through the rectangle.
- 3. Fly around the flag.
- 4. Fly through the arch.
- 5. Fly around the flag in a counter-clockwise direction.
- 6. Fly through the rectangle.
- 7. Land at the finish point and turn off the engines.

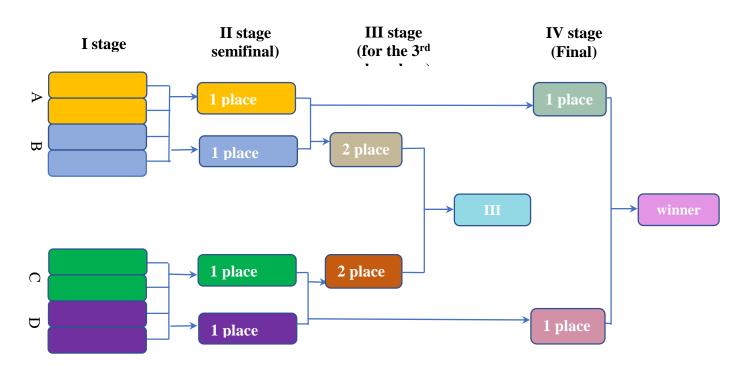


No.	Name	Number of

		points
1	Flying through a rectangle in a straight direction	
	The flight was successful, without touching the rectangle.	1
	The flight is successful, there is a touch of the rectangle	0.5
	The flyby did not take place	0
2	Flag fly-by (clockwise)	
	The flight was successful, without touching the flag.	1
	The flyby was successful, with a touch of the flag.	0.5
	The flyby did not take place	0
3	Flying through the arch in a straight direction	
	The flight was successful, without touching the arch.	1
	The flight is successful, there is a touch of the arch	0.5
	The flyby did not take place	0
	U-turn	
4	Flying through the arch in the opposite direction	
	The flight was successful, without touching the arch.	1
	The flight is successful, there is a touch of the arch	0.5
	The flyby did not take place	0
5	Flag fly-over (counterclockwise)	
	The flight was successful, without touching the flag.	1
	The flyby was successful, with a touch of the flag.	0.5
	The flyby did not take place	0
6	Span rectangle in reverse direction	
	The flight was successful, without touching the rectangle.	1
	The flight was successful, touching the rectangle.	0.5
	The flyby did not take place	0
7	Landing within the landing zone	
	All quadcopter legs are inside the zone	1
	At least one quadcopter leg is inside the zone	0.5

	All quadcopter legs are outside the landing zone	0
8	Time to complete the route in seconds	
	Best time to complete (1st result)	1
	2nd result	0.7
	PENALTY POINTS	GRADE
1	Copter crash (1 point)	
2	Violation of safety regulations (1 point)	
3	Quadcopter touching the flight zone boundary (net or racks) (0.5 points, awarded once per attempt)	
TOT	AL POINTS OF THE PARTICIPANT (TEAM)	

Tournament grid



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