PREILI ROBOTICS CHAMPIONSHIP
DRONE DISCIPLINE RULES

Drone racing is a sport, in which the participants control the drones (usually a small radio controlled aircraft or quadcopter), which are equipped with a camera, with the pilot wearing a display or glasses on their head, which are showing a live video feed from the drone camera. Like the full-size flying competitions, the main goal is to fly through the track the quickest.

Overall aircraft specifications

In the competition, drones are divided into 2 categories without an age restriction or division.

1. 1" inch (25.4mm) sized propeller drones:
    a. Battery: maximum 1 cell LiPo,
    b. Propellers: maximum 31 mm (it must be completely encased with safeguards),
    c. Motors: with or without collector (*rules corrected January 21, 2019*),
    d. Video broadcast power: maximum 25 mw,
    e. Weight: maximum 40g.
2. 3" inch sized propeller drones:
    a. Battery: maximum 3 cell LiPo,
    b. Propellers: maximum 66 mm,
    c. Motors: with or without collector,
    d. Video broadcast power: maximum 50 mw,
    e. Weight: maximum 250g.

Technical inspection before the flight

Every participant must go through drone technical inspection. The competition referee can disqualify drone, which doesn't conform to the technical specifications. During the technical inspection the pilots will be asked to remove the safeguards, propellers, battery and show that the drone is programmed correctly. In order to ensure a safe flight, pilots will be asked to start the motors and turn off the controller. Correct drone action will be that, if the signal is lost, the motors will turn off. If the drone doesn't turn off the motors when the signal is lost, then it doesn't pass the technical inspection and it won't be able to fly until the issue is resolved.

Competition procedure

Controlled test flight up to 5 min:
    1. **Check, if the timing system works**
    2. **Check, if the video stream is correct**
    3. **If it's necessary, change the piloted aircraft frequency**
    4. **Uncoordinated self-service and flights are not allowed**

Starting

1. Pilots are in the selected frequency range and check, if their aircraft is ready, check if the video channel and signal is correct and works.
2. Pilot confirms that he's ready to start by putting on their glasses and giving a thumbs up.
3. After the confirmation, the competition begins.

Rules for the repetition of competition

1. Damaged obstacles (gates, flag, etc.).
2. People in the competition area or other dangerous conditions (after the referee initiative).
3. If the obstacle is damaged, the referee can choose to stop the flight.
4. For any other unexpected reasons, the decision for the flight repetition is up to the referee.