



IIT JODHPUR

PROMETEO 2023

RULEBOOK



DRONE RACING

Introduction

It's time to bring the race to the skies, Introducing for the first time ever IIT Jodhpur's very own Drone Racing League. Get ready to go faster, faster, faster until your thrill of speed overcomes your fear of death. So get your drones ready and join us in Prometeo'23.

GENERAL GUIDELINES

- 1.FPV event
- 2.Night race
- 3.Players will be given practice time from 11 AM to 3 PM on 20th Jan.

IMPORTANT TERMS

- DNS: Did Not Start
- DNF: Did Not Finish
- DQ: Disqualified
- OOB: Out of Bounds
- E: Eliminated from entire race

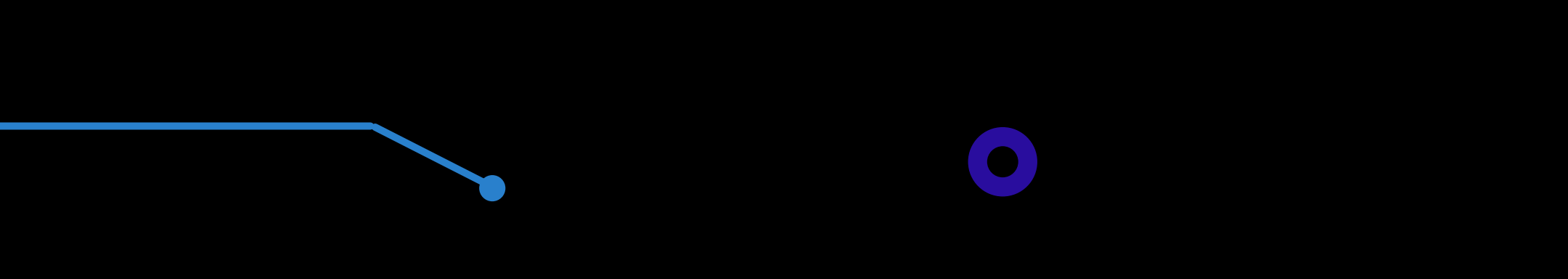
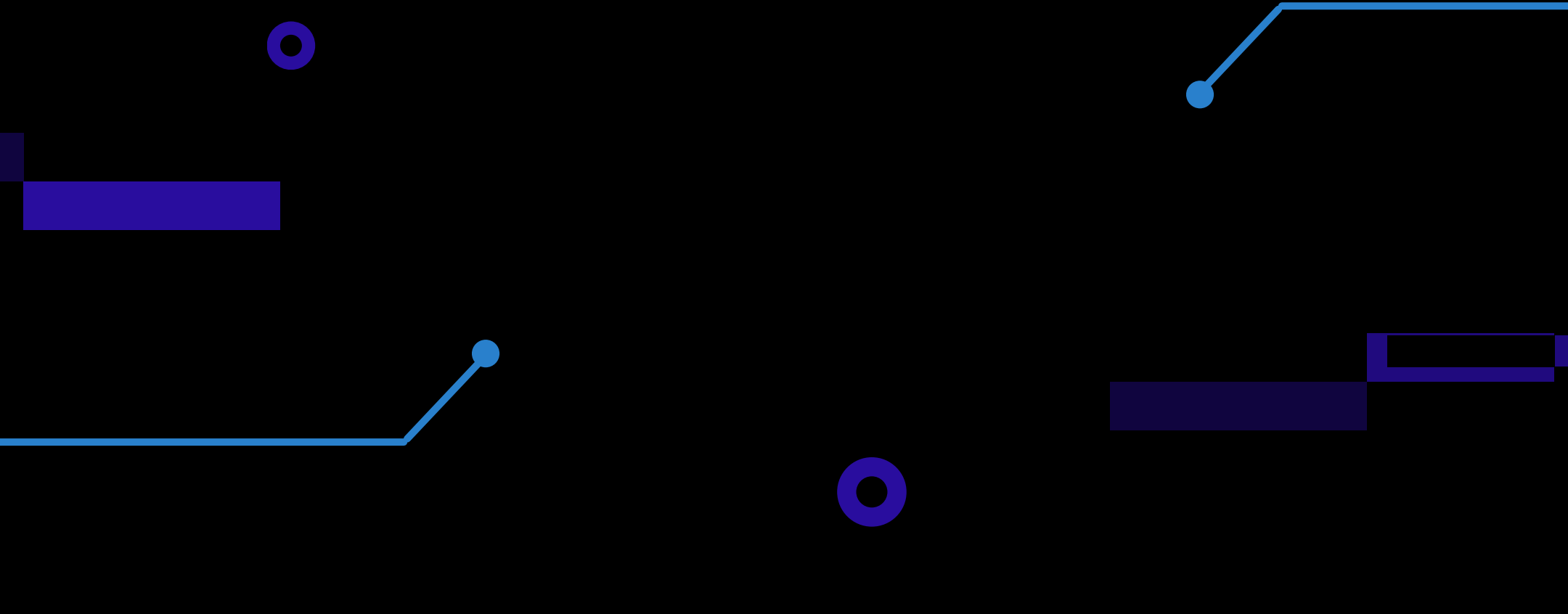
DRONE SPECIFICATIONS

- Battery Minimum :: 3S
- Battery Max :: 6S
- Props Minimum :: 3 inch
- Props Max :: 6 inch
- Configurable LEDs which can be changed on demand are a must for Prometeo Night Races. Your quad must be brightly lit in the night sky to be visible from a far distance to the spectators. You will be assigned your colors and frequencies on race night. *No LEDs = No entry*
- FPV goggles / FPV screen compulsory. No Line of Sight Flying allowed.
- Any material for props but not Carbon Fiber.
- No Weight Limit
- VTx Rating = Switchable 25mW/200mW 5.8 Ghz for FPV with at least 40 channels with support for Raceband Channels.
- These channels need to be supported on VTx and VRx:
 - Raceband Channels (5658, 5695, 5732, 5769, 5806, 5843, 5880, 5917) and Channels 5645, 5740, 5800, 5860, 5945

- Pilots will carry a minimum of 2 batteries.
- Pilots will carry their own battery chargers, charging points would be provided.
- Pilots should bring their own soldering and other materials.
- All frames must pass a safety and airworthiness inspection. Once the airframe has been checked and approved, it must not be modified or changed, or it will need to be re-inspected.
- Pilots will only use circular antennas on quads and antennas must be in good condition.
- Pilots will ensure that their respective freqs, VTX output levels & LEDs are set according to the Event Pilot Roster before entering the pit area / racetrack.

Venue Rules

- Pilots must adhere to all rules within the competition venue, and will not fly in any other part of the venue unless it is a designated flight zone.
- No pilot other than those actively participating in the current heat will plug in their quads until the heat is completed and all the pilots have landed. This will be announced by the race director.
- All batteries in possession of non-flying pilots for a heat will have to be handed over and placed on dedicated placards assigned to each pilot on long tables.
- *** Any pilot not obeying this rule will be immediately disqualified from the entire race and will be asked to leave the pit area ***
- Pilots who are not in READY-TO-GO state 15 mins prior to race start will be disqualified from participating in the race.
- Pilots MUST NOT assume any change of race time until it is officially announced by the organizers.

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- Pilots are required to bring their own battery chargers to the race and any other tools/equipment required to setup, program or repair their quads such that their quads are always in the ready to fly state.
 - General charging of electronic devices including radios or any device with a self-contained power supply is permitted.
 - All batteries must be stored in a LiPo-safe bag or in an approved, fire resistant container.
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Race Format

- All races will be governed by an appointed team of judges/organizers.
- All races will follow the general rules and regulations of the competition.
- Each race will be monitored by judges, cameras, timing/lap systems and volunteers to maintain fair and accurate competition.

Any pilot garnering 3 successive DQs will attain E (Elimination from the entire race).

- Any pilot found non-adherent to specified frequencies, VTX output levels and LED color after the initiation of a heat will convey a DNS to the race director or will risk attaining a DQ.
- In the event of a mid-air collision after the start gate, pilots can resume the race if they are able to take off again without intervention, otherwise their heat is considered a DNF.

- Any practice or behavior deemed unsafe, (i.e. flying above the max ceiling height) will result in an immediate disqualification.

Race Rules

- Pilots must stay within all prescribed flight paths.
- Pilots must keep all aircraft in the disarmed state until they have been given the “ARM” signal. This will happen only when the aircraft has been placed on the starting deck.
- After the competition of a heat, pilots will immediately land and disarm only on the specified landing zone/ landing pad.
- All pilots will be allotted their respective frequencies and split into heats well before race day. Frequencies will be primarily allotted from Raceband Channels (5658, 5695, 5732, 5769, 5806, 5843, 5880, 5917) or from 5645, 5740, 5800, 5860, 5945 in case of certain situations where Raceband is problematic.

- Hard 2 min Pilot seated Goggles Down Timeout Timer with drone placed on race pod or ground. No excuses tolerated for even 1 extra sec. DQ for heat if timeout and E if complaining further and delaying others.
- In event of unexpected media intervention while Timeout timer, timer paused and resumed on announcement.
- E for any non flying pilot discovered to have plugged in at the pits during any heat.
- No assumptions for any new rules tolerated until organizers make some changes
- Given race circumstances, all pilots have to say yes to a suggested modification for the rule to be applied to that race.
- Pilots will NOT be given any Retries

- Pilots must adhere to the prescribed launch sequence. No movement before the starting signal. False starts will incur a penalty.
- Pilots must maintain control of their aircraft at all times and only fly within their skill level. Any pilot who exhibits unsafe flying procedures may be disqualified at any time.
- Once pilots have successfully completed all laps, they must return to the start/finish pad, land and DISARM.
- Pilots that have crashed at any point during the heat and are unable to resume racing must DISARM their aircraft and wait until the heat is over.

- Race tracks would have gates, pilots must successfully fly through all gates, around the flags, and other obstacles (if any) on the course. If a pilot misses an obstacle or gates, they must safely turn around and attempt the obstacle again. If they don't turn around and continue to race, that entire heat would not be counted.

- If a pilot due to any reason, knowingly/unknowingly/accidentally goes out of bounds then pilots first priority should be to get the drone back in the bounds. And continue to race. If such an incident occurred multiple times then organizers have full right to disqualify the pilot from heat or the whole event.
- In the event of a crash or the inability to resume flight safely, the pilot must immediately DISARM their aircraft and give the Thumbs Down signal. For that heat pilot is deemed as DNF.
- Pilots may have multiple airframes, and each airframe must pass all safety and airworthiness checks before flying.

NOTE: The format of the tournament and the point system will be declared on the day of the competition.



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