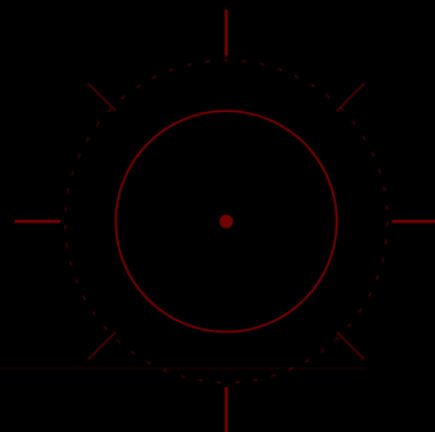


D R O N E



X T R E A M E 2 . 0

FPV RACING

LOS RACING

INNOVATION ARENA

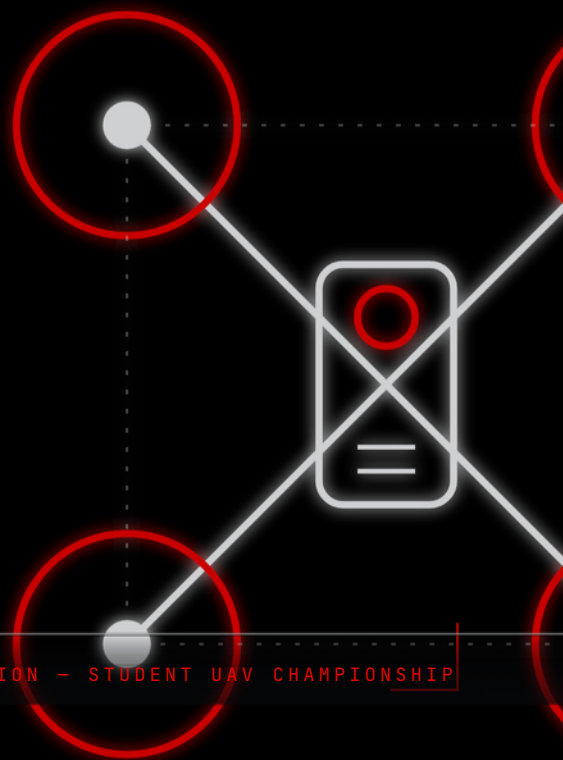
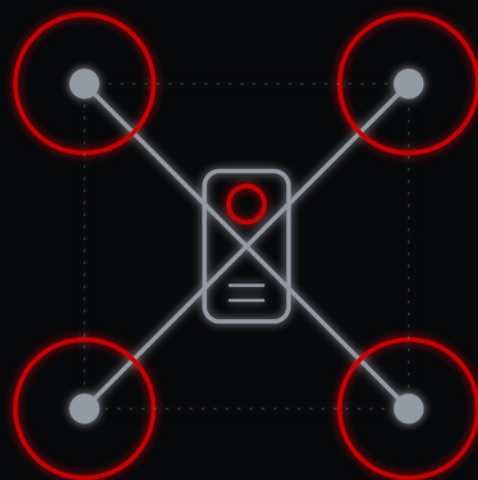


TABLE OF CONTENTS

DOC // INDEX

A student UAV championship spanning FPV racing, line-of-sight racing, and open engineering innovation – governed cover-to-cover by the rules that follow.

01	FPV GOGGLES DRONE RACING	04
02	LINE-OF-SIGHT DRONE RACING	07
03	FPV VS LOS – TECHNICAL COMPARISON	08
04	100M RACING COURSE	09
05	GENERAL RULES	11
06	SAFETY	13
07	PENALTIES	14
08	DRONE INNOVATION ARENA	16
09	JUDGING CRITERIA	18
10	ORGANIZER INFORMATION	19



01 FPV RACING

SPEED / PRECISION / CONTROL

Tests pilot skill, speed, precision and safety through a designated obstacle course flown entirely in First-Person View.

3"– 7" DRONE SIZE	3S–6S BATTERY	1500 WEIGHT LIMIT	100 m DESIGNATED COURSE RACING COURSE	VARIABLE OBSTACLE CONFIG.
-----------------------------	-------------------------	-----------------------------	---	-------------------------------------

- 01** The FPV Drone Racing Championship is designed to test pilot skill, speed, precision and safety while flying through a designated obstacle course using First Person View (FPV).
- 02** Eligible FPV drone size: **3" to 7"** is allowed.
- 03** Battery: **3S to 6S**. LiPo and Li-ion batteries allowed. Each pilot should have backup batteries — minimum 2 to 5 — and their own chargers. Charging ports will be provided.
- 04** Frame: carbon fiber or equivalent. **Metal frames are not permitted.**
- 05** Weight category: maximum AUW **1500 g** with battery.
- 06** FPV Goggles: Analog, HDZero, DJI, Walksnail, etc. Only the assigned video frequency may be used — changing frequency without approval results in an immediate penalty.
- 07** Each FPV pilot must have one spotter. Spotter duties include maintaining visual contact with the drone, warning the pilot of hazards, and informing officials during emergencies.
- 08** Each pilot's drone must pass all Pre-Race Inspection, conducted by the Race Instructor.

09 **Race Format** — Pre-Flight Check and Final Race Round.

- Pre-Flight Check: participants complete basic flight checks — arming, take-off, stable flying, controlled landing. Only those who pass qualify for the final round; failing any part results in disqualification.
- Final Round: run on a **100-meter designated racing course** containing multiple obstacle sections and flight challenges. The obstacle configuration may include varied and unexpected challenges designed to test pilot skill, speed, precision and control. The exact number, type, arrangement and sequence of obstacles will not be revealed to participants in advance and will be disclosed or presented at the discretion of the organizing committee.

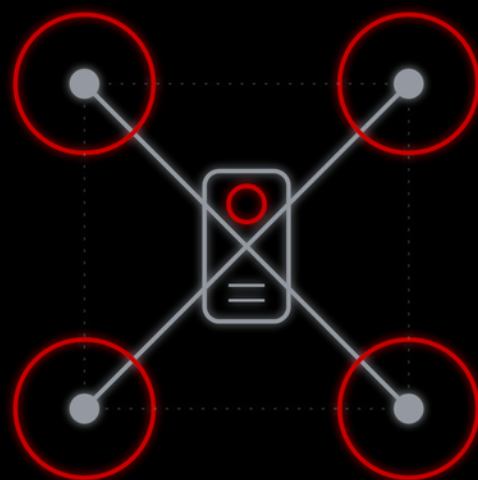
10 **Race Rules** — Pilots shall not fly over spectators, shall not fly outside the designated course, must complete all gates and flags, and may fly only after the official start command.

11 **Crash Procedure** — If a crash occurs, the pilot may continue only if it is safe. Only the Race Instructor may enter the track during a live race; pilots must never retrieve their own drone manually during a live race, except in emergencies such as a battery fire or a drone colliding with gates.

12 **Penalties** — Cover missing a gate, course cutting, unsafe flying, false start, and ignoring marshal instructions. Violations may reduce race points or result in disqualification.

- Changing video frequency without approval results in an immediate penalty. Only the Race Instructor may enter the track during a live race.

Pre-Flight Check (qualifying) → Final Round on the 100 m designated racing course. Obstacle configuration is variable and undisclosed until the organizing committee presents it.



02

LOS

RACING

VISUAL CONTACT / DISCIPLINE / CONTROL

Conducted without FPV goggles – pilots must maintain direct visual contact with their drones throughout the race.

3"– 7"

DRONE SIZE

3S–6S

BATTERY

1200

WEIGHT LIMIT

100 m

DESIGNATED
COURSE
RACING COURSE

VARIABLE

OBSTACLE CONFIG.

- 01** The Line-of-Sight Drone Racing competition is conducted without FPV goggles. Pilots must maintain direct visual contact with their drones throughout the race.
- 02** Eligible drone size: **3" to 7"** is allowed.
- 03** Battery: **3S to 6S**. LiPo and Li-ion batteries allowed.
- 04** Frame: carbon fiber or equivalent. Metal frames are not permitted.
- 05** Weight category: maximum AUW **1200 g** with battery.
- 06** Technical Inspection: officials check battery condition, frame size, propeller size and, mainly, failsafe – conducted by the Race Instructor.
- 07** Pilot requirements: keep continuous visual contact with the drone; stand within the designated pilot area.
- 08** **Race Format** – Pre-Flight Check and Final Race Round.
 - Pre-Flight Check: arming, take-off, stable flying, controlled landing – passing all parts is required to qualify. Failing any part results in disqualification.
 - Final Round: run on the same **100-meter designated racing course**, containing multiple obstacle sections and flight challenges. The exact number, type, arrangement and sequence of obstacles is not disclosed in advance and is presented at the discretion of the organizing committee.
- 09** **Race Rules** – Follow the official course, pass through every gate, remain within race boundaries, and complete the track within the determined time.
- 10** **Crash Procedure** – Any crash made by a pilot during a live race results in penalties for the pilot's team.

FPV VS LOS RACING

TECHNICAL COMPARISON



FPV RACING

VS



LOS RACING

SPECIFICATION	FPV RACING	LOS RACING
Vision Method	FPV goggles (video feed)	Direct visual contact
Drone Size	3" - 7"	3" - 7"
Battery	3S - 6S, LiPo / Li-ion	3S - 6S, LiPo / Li-ion
Frame	Carbon fiber or equivalent	Carbon fiber or equivalent
Max AUW (with battery)	1500 g	1200 g
Spotter Required	Yes — mandatory	Not specified
Track	100 m course — obstacle config. undisclosed	100 m course — obstacle config. undisclosed
Format	Pre-Flight Check → Final Round	Pre-Flight Check → Final Round

Both tracks share the same 100 m designated racing course and Pre-Flight Check qualifying stage — the obstacle configuration is variable and undisclosed for both, and only the vision method and weight allowance differ.

100-METER RACING COURSE

COURSE MAP // CONFIDENTIAL

Identical course foundation for both FPV and LOS finals: a 100-meter designated racing course containing multiple obstacle sections and flight challenges. The exact number, type, arrangement and sequence of obstacles is not disclosed in advance.



100 METER RACING COURSE – OBSTACLE CONFIGURATION UNDISCLOSED

100
RACING COURSE

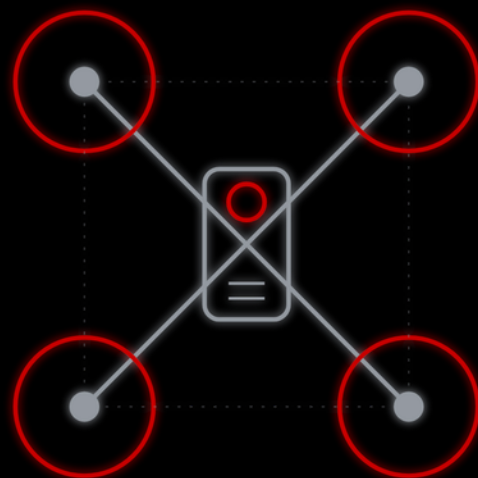
SURPRISE
OBSTACLE CONFIGURATION

CONFIDENTIAL
FINAL COURSE LAYOUT

- The exact number, type, arrangement and sequence of obstacles will not be revealed to participants in advance. The organizing committee may introduce different obstacle configurations as part of the competition – obstacle configuration will be revealed or presented at the organizing committee's discretion.

All gates and flags on the course must be completed. Course-cutting and missed gates are penalized in both FPV and LOS racing.

EXPECT THE UNEXPECTED.



03

GENERAL RULES

ELIGIBILITY / CONDUCT / SAFETY

01 Eligibility

- Open only to students currently enrolled in recognized colleges or universities.
- Every participant must present a valid College ID card during registration.
- Each participant may register in one or both categories (subject to organizer approval).
- Registration is confirmed only after successful verification by the organizing committee.

02 Registration

- Participants must complete official registration before the specified deadline.
- No on-the-spot registration will be accepted unless announced by the organizers.
- Registration fees, if applicable, are non-refundable.

03 Safety Briefing

- Attendance at the official safety briefing is mandatory.
- Participants who fail to attend the briefing may not be permitted to race.

04 Technical Inspection

- Every drone must pass technical inspection before participating.
- Organizers reserve the right to reject any drone deemed unsafe or non-compliant.
- Technical inspection may be repeated at any stage of the competition.

05 Pilot Responsibility

- Pilots are solely responsible for the safe operation of their drones.
- Pilots must ensure equipment is in proper working condition before every flight.
- The organizing committee is not responsible for equipment failure or pilot error.

06 Personal Conduct — Participants shall respect race officials, volunteers and fellow competitors; maintain professionalism and sportsmanship; follow all instructions from race officials; avoid abusive, offensive or disruptive behavior.

07 Safety — Safety is the highest priority throughout the event. Flying over spectators, officials or restricted areas is strictly prohibited. Pilots must immediately obey any "STOP RACE" or emergency instruction.

08 Pit Area Rules

- Drones must remain disarmed while in the pit area.
- Propellers must not be spun intentionally inside the pit area.
- Battery charging is permitted only in the designated charging zone.
- Participants should use LiPo-safe charging practices.

-
- 09 Equipment Responsibility** — Participants are responsible for their own drones, batteries, transmitters, goggles, chargers and accessories. Organizers are not liable for loss, theft or damage to personal equipment.
-
- 10 Weather Policy** — The organizing committee may postpone, suspend or cancel races due to adverse weather or unsafe conditions. The committee's decision on weather-related delays is final.
-
- 11 Rule Violations** — Participants may receive penalties or be disqualified for dangerous or reckless flying, ignoring official instructions, unsportsmanlike conduct, deliberate interference with another participant, tampering with competition equipment or race infrastructure, or violating any rule in this rulebook.
-
- 12 Protests and Appeals** — Any protest must be submitted to the Race Director within the time specified by the organizers after the race. Protests must be respectful and supported with relevant evidence where available. The decision of the Race Director and organizing committee is final.
-
- 13 Photography and Media** — Organizers reserve the right to photograph and record the event. Participants grant permission for photographs and videos captured during the event to be used for promotional, educational or media purposes without additional compensation.
-
- 14 Damage and Liability** — Participants are responsible for any damage caused by their equipment due to negligent or unsafe operation. By participating, competitors acknowledge the risks of drone racing and participate at their own responsibility.
-
- 15 Organizer Rights** — The organizing committee reserves the right to amend these rules for safety or operational reasons, modify the schedule, change the race format based on participation or weather, and remove any participant whose conduct is unsafe or inappropriate.
-
- 16 Acceptance of Rules** — Participation in the competition constitutes acceptance of all rules, regulations and decisions made by the organizing committee and race officials.
-

ALERT LEVELS & PROTOCOL

SAFETY

Safety is the highest priority throughout the event. Every participant is bound by the alert protocol below, drawn directly from the rulebook's safety and crash-procedure provisions.



CRITICAL SAFETY

- ▶ Flying over spectators, officials or restricted areas
- ▶ Entering the live track without being the Race Instructor
- ▶ Retrieving a drone manually during a live race (except genuine emergencies)
- ▶ Changing FPV video frequency without approval
- ▶ Dangerous or reckless flying



CAUTION

- ▶ Missing a gate or cutting the course
- ▶ False start / starting before the official command
- ▶ Ignoring marshal or official instructions
- ▶ Spinning propellers inside the pit area
- ▶ Charging batteries outside the designated zone



INFORMATION

- ▶ Attend the mandatory safety briefing
- ▶ Keep drones disarmed while in the pit area
- ▶ Use LiPo-safe charging practices
- ▶ FPV pilots must race with an assigned spotter
- ▶ Obey any "STOP RACE" or emergency instruction immediately

If a crash occurs, the pilot may continue only if it is safe to do so. Only the Race Instructor may enter the track during a live race. Manual retrieval by the pilot is permitted only in genuine emergencies, such as a battery fire or a collision with gates.

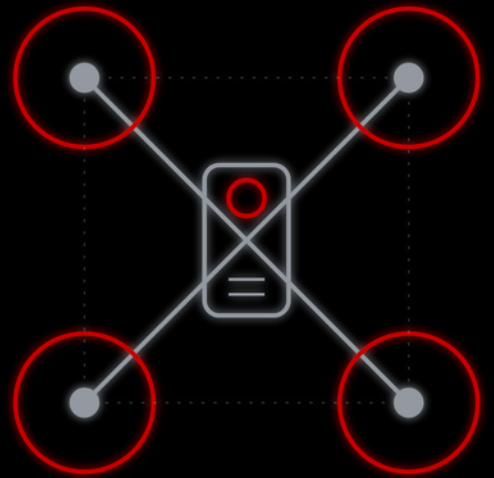
VIOLATION & CONSEQUENCE MATRIX

PENALTIES

Penalties are assessed by race officials and marshals. Severity is reflected in the matrix below; repeated or compounded violations may escalate toward disqualification.

MINOR	Point Reduction Missing a gate · course cutting · false start
MAJOR	Penalty / Point Reduction Unsafe flying · ignoring marshal's instructions · unauthorized frequency change · crash during a live race (LOS)
CRITICAL	Disqualification Failing any part of the Pre-Flight Check · dangerous or reckless flying · deliberate interference with another participant · tampering with equipment or race infrastructure · violating any rule in this rulebook

CATEGORY	GOVERNING RULE
FPV Racing Penalties	Minor: obstacle contact, false start, minor course deviation. Major: missed obstacle, course cutting, unsafe flying, ignoring marshal instructions, unauthorized frequency change, deviation from the track .
LOS Racing Penalties	Minor: obstacle contact or minor course deviation. Major: missed obstacle, course cutting, unsafe flying, loss of required visual contact, pilot-caused crash.
General Rule Violations	Dangerous/reckless flying, ignoring officials, unsportsmanlike conduct, interference, tampering, any rule violation



04

DRONE INNOVATION ARENA

ENGINEERING / AUTONOMY / ORIGINALITY

A platform for students to showcase innovative drone technologies, custom-built UAVs and engineering solutions – presented and explained before a panel of judges.

ELIGIBILITY

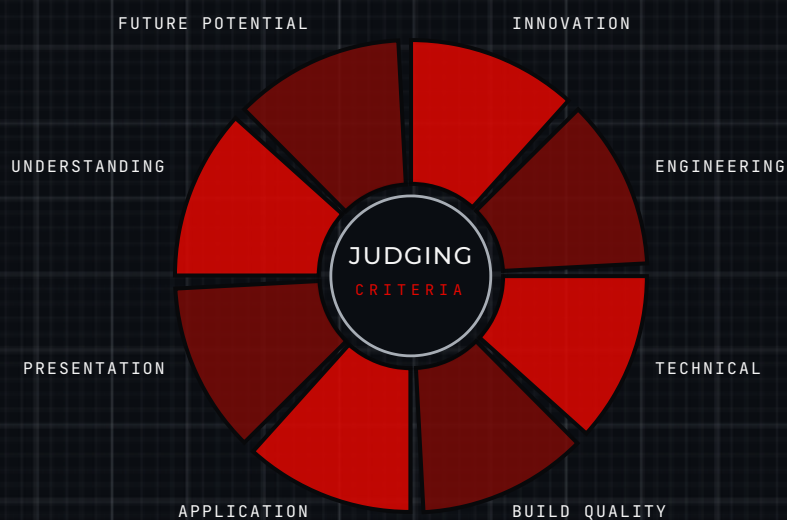
- ▶ Open only to students currently enrolled in recognized colleges or universities.
- ▶ Participants must present a valid College ID during registration.
- ▶ Individual and team entries are permitted.
- ▶ Each team may register one or more projects, subject to organizer approval.

ELIGIBLE PROJECTS

 Custom-Built Drones	 Modified Commercial Drones	 Autonomous Drones
 AI-Enabled Drones	 Delivery Drones	 Agriculture Drones
 Mapping & Surveying	 Inspection Drones	 Swarm Drone Concepts
 Custom Flight Controllers / Avionics	 Payload Systems	 Propulsion & Power Systems

...and any UAV-related engineering innovation.

-
- 04 Project Requirements** — Each team must present: project title, problem statement, objective, drone specifications, list of major components, description of the innovation, applications, challenges faced during development, and future improvements. CAD models, simulations, videos or technical documentation are encouraged.
-
- 05 Demonstration** — Participants may display their drone, explain the hardware and software architecture, and demonstrate selected features if permitted by organizers. Indoor flight demonstrations are allowed only with prior approval and only within the designated safety area.
-
- 06 Safety Requirements** — All drones must remain disarmed while on display unless instructed otherwise. Propellers should be removed or secured during static demonstrations whenever possible. Batteries must be in good condition. Unsafe equipment will not be permitted.
-
- 07 Presentation** — Teams are given a fixed presentation time as announced by organizers, followed by a question-and-answer session with the judges. Every team member should be prepared to answer technical questions.
-
- 08 Code of Conduct** — Participants shall respect judges and fellow participants, present original work, maintain professional behavior, and follow instructions from event officials. Plagiarism or false claims regarding project development may result in disqualification.
-
- 09 Organizer Rights** — The organizing committee reserves the right to verify project authenticity, request additional technical explanations, modify the event schedule if necessary, and disqualify unsafe or inappropriate entries.
-
- 10 Acceptance of Rules** — Participation in the Drone Innovation Arena indicates acceptance of all event rules and the decisions of the organizing committee and judges.
-



Drone Innovation Arena projects are evaluated across eight criteria. The panel's decision is final.

- ▶ Innovation and originality
- ▶ Engineering design
- ▶ Technical complexity
- ▶ Build quality
- ▶ Practical application
- ▶ Presentation and communication
- ▶ Understanding of the project
- ▶ Feasibility and future potential



FLY FAST. THINK SMART. FLY SAFE.

DRONE CHALLENGE 2026

OFFICIAL RULEBOOK

ORGANIZED BY
DDC ,ESEC



SCAN FOR UPDATES