

## **Drone Flying Challenge (Drone Race) Guidelines**

### **1. Purpose**

This document outlines safety and operational regulations that govern drone racing to ensure participants enjoy fair competition in a safe environment.

### **2. Drone Specifications:**

- **Maximum Frame Size:** 450mm (diagonally motor to motor)
- **Maximum Weight:** 1 kg max (including battery)
- **FPV Cam & Goggles:** Optional (recommended but not mandatory)
- **Flight Height:** Freestyle, within the arena/obstacle boundaries (max 10 ft)

### **3. Safety Requirements (Pre-Competition)**

- All participants must have prior drone-flying experience or be assisted by an experienced participant.
- All drones must undergo a successful test flight prior to the event.
- Safety checklist and Event Participation Form must be completed.

### **4. Pre-Flight Inspection**

- Conducted by Safety Officers or Technical Coordinators.
- Drones will be inspected for:
  - Build quality and airworthiness
  - Functional arming/disarming switch
  - Fail-safe programming (recommended)
  - Proper functioning of motors and battery setup
- Props must be removed during inspection for safety demonstration.

### **5. Venue Safety Guidelines**

- **Flight Envelope:** Maximum 10 ft height
- **Course Setback Distance:**
  - Minimum 6 ft from any human-occupied area
  - 7 ft or more is recommended unless netting is installed

### **6. Participant Guidelines**

- Follow instructions from Event Convener, Race Director, or other officials.
- Never enter the course while drones are flying.
- Respect the flight line which marks the boundary between the pilot/spectator area and race course.
- Cut drone power immediately after completing the race.
- First aid location will be announced at the event.

### **7. Pilot Guidelines**

- Fly only in designated areas and during assigned time slots.

- Power up your drone only in the Start/Finish area.
- Stand within the designated Pilot Area while flying.
- Land in the designated landing area.
- Do not power up in the pits or while walking.
- Spotters/team members may assist pilots from within the Pilot Area.
- Maintain proper sportsmanship.
- Misconduct or tampering will lead to disqualification.

## **8. Spectator Etiquette**

- Stay clear of the Pilot Area during active flights.
- Avoid interrupting pilots during races.

## **9. Number of Models**

- Each participant may use a maximum of 2 models.
- Each model must pass inspection.
- A drone can be used by only one team.
- Model changes allowed:
  - Before the race begins
  - Between qualification and elimination rounds

## **10. Model Processing**

- Up to two models may be registered.
- Checks will include:
  - Identification mark
  - Flight controller
  - Size and weight
  - Battery voltage
  - Fail-safe settings
  - Radio equipment
  - VTX, FPV camera, goggles (if used)
  - LED lighting (optional)

## **11. Arena Details**

- The event will be held indoors.
- If weather permits, minor outdoor segments may be added (with prior notice).

## **12. Race Course & Obstacles**

- Course will include gates, tunnels, and hurdles.
- Missed or incomplete obstacles must be retried.
- Ground/obstacle touch is considered a foul and may result in time penalties.
- Obstacles are designed to suit drone size with adequate manoeuvring space.

**13. Scoring & Penalties:** Time penalties for: Missing obstacles (Extra 20sec), Ground or obstacle contact (Extra 10sec) Final scores will be based on obstacle completion and time efficiency.