

# **Drone Racing Camp - Operational Safety File**

## **GENERAL SITE RISK ASSESSMENT**

- Hazards: Slips/trips, inadequate signage, poor lighting, access routes
- Controls:
  - Daily site inspection
  - Clear exit signage
  - Designated first aid station
  - Weather monitoring (for outdoor flying)

## **DRONE FLIGHT OPERATIONS RISK ASSESSMENT**

- Hazards: Propeller injury, crashes, signal loss, interference, eye injuries from FPV use
- Controls:
  - Designated flight zones
  - Pre-flight checks and range testing
  - Use of prop guards where possible
  - FPV goggles used only with supervision
  - No-fly zones marked and enforced

## **BATTERY HANDLING & CHARGING RISK ASSESSMENT**

- Hazards: Battery fire, explosion, short-circuit, burns
- Controls:
  - Use LiPo safe charging bags and fireproof containers
  - Batteries labelled with student name
  - Charging monitored by staff at all times
  - No overcharging - use of balance chargers
  - Daily battery inspection and logging

## **SOLDERING & ELECTRONICS RISK ASSESSMENT**

- Hazards: Burns, inhalation of fumes, lead exposure, tool misuse
- Controls:
  - PPE worn (goggles, gloves if needed)
  - Lead-free solder only
  - Ventilated soldering area with staff supervision
  - Clear safety signage and instructions
  - First aid kit available at station

## **DRONE ASSEMBLY & TOOL USAGE RISK ASSESSMENT**

- Hazards: Cuts, ingestion of small parts, eye injury, electric shock (testing phase)
- Controls:
  - Tools checked and logged before use
  - Small parts stored in trays
  - Eye protection during build sessions
  - Safe cable routing and no live testing without supervision

## **PROGRAMMING & SCREEN TIME RISK ASSESSMENT**

- Hazards: Eye strain, neck/shoulder fatigue, electrical safety
- Controls:
  - Timed breaks and posture reminders
  - Ergonomic setup of laptops where possible
  - PAT-tested equipment only

## **DIY LED GATE BUILD RISK ASSESSMENT**

- Hazards: Burns (glue gun), cuts (PVC or wood base), wiring errors, battery mishandling
- Controls:

- Supervised use of hot glue guns
- Pre-cut PVC lengths or staff-assistance for sawing
- Wiring diagrams provided
- Only low-voltage battery packs used

## **OBSTACLE COURSE SETUP & USE RISK ASSESSMENT**

- Hazards: Trip hazards, unstable structures, drone impact
- Controls:
  - Use of soft base crash mats
  - Secure anchoring of race gates
  - Clear walking routes around course
  - Supervision during setup and use

## **APPENDICES**

- A. Daily Safety Checklist
- B. Battery Charging Log Template
- C. Drone Pre-Flight Checklist
- D. Incident & Near Miss Reporting Form
- E. Safeguarding Summary Protocol