Aerial Adrenaline

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Overview:

Aerial Adrenaline is a thrilling drone racing event organized by the RoboForge Club of NIT Nagaland during the annual tech fest of NIT Nagaland Tech Avinya.
Participants will race high-speed drones through a challenging obstacle course made of squares.
The event tests precision flying, agility, and control under competitive conditions.
It encourages innovation, skill development, and technical excellence in aerial robotics.
With speed and strategy combined, it promises an adrenaline-packed experience for all. The participant must complete the race one by one.

Team details:

- Team formation can be either Solo or a team of up to 6 where there is a team leader and max of 5 members.
- Anyone can participate in the race from school students to college students to any adult and profession drone pilot.

Specification of Drone:

- Weight of Drone should be maximum of 3 kg and minimum of 500 gram.
- Frame of drone should have a max diameter of 50 cm and max of 10 cm height excluding landing legs.
- Motors should have max of 2500 KV rating for BLDC and max of 31500 RPM for coreless and brushed motor.
- Battery should be maximum of 4S and 2200mAh.
- Both FPV and LOS drones are allowed.
- Only battery power Drones are allowed.
- The participant can prefer LOS or FPV upon convenience.
- Drones must be fully manual control no use of AI and automatic navigation.
- GPS is allowed, for RTL not autopilot.
- Multiple Pilots are allowed for a drone in trainer-student mode.
- Make sure that you can change channels of your transmitter and receiver so there is no interference with signal of someone else transmitter.

- Transmitter should have minimum range of 100m at LOS.
- Any transmitter and receiver can be used at any legal frequency and power level.
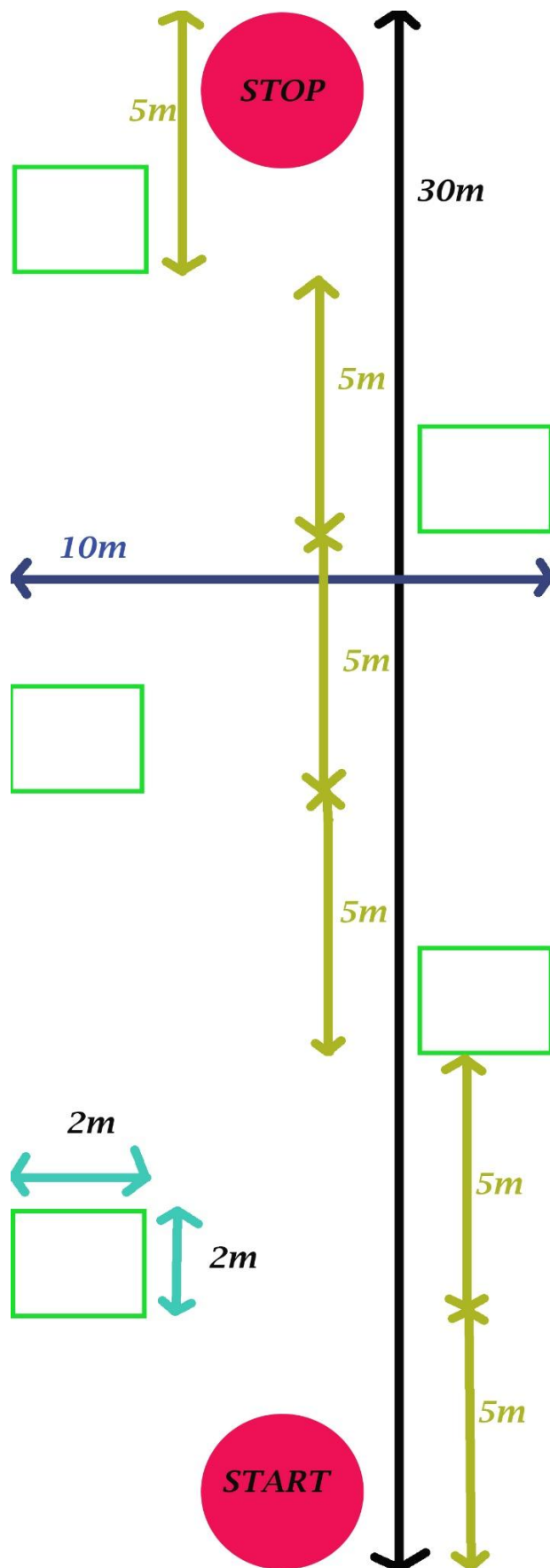
Safety:

- Battery should be properly enclosed.
- Use proper gauge of wire so that it does not overheat then short circuit.
- Battery Management System or a balanced charger is encouraged.
- Either RTL feature or Shut-down feature must be implemented when connection is lost.
- Arming and disarming feature is mandatory.
- Turn of your transmitter when other participants are in the match.
- The power of transmitter and VTX must be within legal power and frequency range.
- Drone should not go beyond 100meter from LOS and 50meter height.
- Pilots must have been trained properly.
- Drone must be kept away atleast,10m radius from spectators and participants.
- Enclosure of Propellers is encouraged.

Disqualification:

- There will be direct disqualification if at any point a team is caught not following Specification and Safety rules.
- Causing interference in signal.

Arena details:

Rules for Race:

- The race will be one team at time.
- There will be a whistle signal for START.
- The drone must complete arena then go to STOP position.
- Time will be counted from start whistle to landing in stop position.
- Skipping of Obstacles is not allowed the participants must complete the whole obstacles.
- Participants will be held responsible if rules are not followed and cause injury to spectators and oneself. And will have to take full expenditure for treatment of injured person.
- Participants can follow the drone.
- There will be no point system the fastest to complete wins followed by runner up.
- In any case timer will not stop.
- Charging of battery will not be allowed in the middle of race.
- There will of obstacles Square of inner sides 200 cm.