



# European Rotor Sports Association

## Manufacturers Cup Drag Racing

The Manufacturers Cup which will take the form of Drag Racing, will run between Friday 7<sup>th</sup> and Sunday 9<sup>th</sup> of October. Below you will find The basic rules, Technical details and other information to assist you to prepare for what will no doubt be a very popular, competitive and fun event.

The drag racing will be run just as you would expect at a usual drag race meeting. Two quads will race each other down a ¼ mile straight track. The runs will be timed and the fastest time will win. Drone will be classed in 2 categories Plus 250mm and Sub 250mm.. heats will consist of Sub 250 races, Plus 250 races and mixed races with a Cup of each.

### Drone Specification.

- Frame size 180mm – 350 mm (diagonal motor to motor)
- Power 6S (HV Batteries are allowed)
- Props 8" maximum size (plastic only)
- VTX Analog which will be supplied (see technical details for more information) or Connex ProSight Digital system (ground stations supplied)
- Control 2.4 Ghz
- Fail safe set to cut motors as soon as signal is lost, Kill switch must also be set up on a switch on the transmitter for safety reason.
- The use of GPS, Sonar and other auto pilot devises are not permitted
- Adjustable angled take off platform will be provided

The below specifications are not mandatory but are allowed.

- HV lipo batteries are allowed
- Additional LED's are allowed
- Canopies are allowed and encouraged
- Camera gimbals are allowed



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## ***Basic Rules***

### **Preparation:**

Teams will be assigned a race time and will have plenty of time to prepare for each race. During this time team will be allowed to power up their machines and hover test in the safe area provided as long as they have one of the provided VTX which will be in "Pit Mode" during the preparation time.

### **Race Start:**

An RF timing system will be used to time the runs and a finish line camera will be recording for Photo finish inquiries.

Due to the nature of the racing, and the importance of a good start, Teams will have 5 minutes to place and prepare their machines on the start line. An angle adjustable start pod will be provided which stands around 1 metre high, During the 5 minute period allowed, teams must place their machine on the starting pod, and adjust the angle to match the pitch angle their machine has been designed to fly at. This means fast starts. (for this reason it may be advisable to disarm the giro setting that will prevent arming at such an angle). The starting pod has a slim lip at the bottom to prevent the machine sliding off before take off. Teams are allowed to attach additional aids to the start pod to help steady and hold the quad, as long as these are removed after their run.

At the end of the 5 minute period, Teams will be asked to power up their machine and retreat from the flight area. When both teams are ready, the pilot will be given a 10 second warning, then a countdown beep, followed by the start tone, at the sound of the start tone and not before! The pilots will begin their run.

## **The Race**

The track is split into 2 lanes, teams are not allowed to deviate into the opposing team's lane.

A team who has a false start (starts before the start tone has sounded) will be disqualified from that run.

For safety reasons, pilots who leave the track will be disqualified from that run and receive a warning, continued warnings will result in disqualification from the competition. Performing tricks and freestyle after a run is not permitted, again for safety reasons, leave the freestyle on the freestyle arena.

## **Finishing the Race**

At the end of the straight track there will be Flags and ground markers that clearly identify the end of the track, once past this point pilots must slow down, and then follow the safe return route back to the start area. There is a 100 metre run off area at the end of the track to give pilots plenty of space to slow and return.



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## Scoring

The drag racing will be scored in different ways. During qualifying each team will compete to get the best time they can. Each team will get multiple runs to achieve this over the course of the competition.

**Fastest time:** There is a Cup to be won in each of the 2 classes for the overall fastest time.

## Accumulative score

In addition to the cup for fastest run, the average time for the 3 best runs of each team will determine which 2 teams from each class go through. There will then be a final between the 2 teams in class to find the Class champion.

## Mixed Race

The final race will be between to winner of the Sub 250 and the winner of the Plus 250 classes.