

# World Drone Cup 2022 - Rules

## General

### Local occurrences

We are flying on a partially active airport with thousands of spectators, smartphones, WiFis and other public and military transmitters. Be prepared for a bad video feed. This is not your backyard field outside your small village!

There will be airshows and flight demonstrations all day long. There will be military jets flying in quite close proximity. These things are f\*\*\*ing loud. They will not pause or fly in silent mode for us. Be prepared for that and be prepared to be shouted at by us.

### Drones

Framesize: 4" - 6"

Batteries: up to 6s

LEDs: At least 4 LEDs face back/down to be visible for following pilots

Switchable colors would be preferred

25mW VTx, analog only, needs to be controllable through your remote (i.e. if a drone crashes in an inaccessible location, switching on PitMode or to a trash channel)

25mW Crossfire (Turkey is using 900MHz GSM, so set your Crossfire to 868MHz!)

100mW Tracer/Ghost/2.4GHz

**In 2019 pilots with "regular" 2.4GHz RC links had major issues/fail safes on similar (airport) location!**

### Track

Obstacles have to be passed in the correct order and from the designated side. The travel between obstacles is up to the pilots (for example CW or CCW corkscrew for ladder gates).

### Unsportsmanlike conduct

Actions and behaviours that have a chance to hold back other pilots from delivering their best performance can be called out by the race leads. Violations can lead into a warning, penalties or disqualifications.

Insults, offenses, discriminations, assaults and other forms of physical and psychological attacks will not be tolerated!

## VRx equipment

We will provide ClearView V1 ground stations for each seat. These groundstations are fed into a DVR for recording and into screens for our judges. This video feed is the base of our decisions. You are free to use your own video receiver, but in case you have video issues that can't be verified by the WDC equipment you won't get a rerun!

**We are flying at a partially active airport. Be prepared for a bad video feed.**

## Reruns

Reruns will be collected throughout each heat. The pilots granted a rerun will be mixed in one or more groups and fly their rerun before the next heat starts.

Reruns for video issues will only be granted if there are MAJOR issues that can be verified by the WDC equipment.

## Etiquette

The residence area will be equipped with a wooden floor. This might swing and give when people are walking. Therefore movement within or in close proximity to the active pilots area has to be limited to the absolute minimum. Personal spotter/helper and pilots have to stay in place until the very last pilot of the current race has ended his flight. Race leads might move for good reasons.

Communication between spotters/personal helpers and the pilot has to be non disturbing to other pilots.

“Complaining” has to be kept to a minimum. Race leads will take note and call out violations of others if necessary.

In case of video issues or failsafes, it's in the pilots responsibilities to judge over a safe flight. In case the safety is jeopardized the pilot has to land or “safely crash” his drone on the spot, not crossing the flying field to get to the designated landing zone. Discussions with race leads will be held AFTER all remaining pilots have landed/crashed.

No drone will be powered up in the residential area! If you need to check your video feed or repaired drone, come to the race line, ask for permission and do your check while the other pilots are setting up/collecting their drones!

Violations of these etiquettes can lead into a warning, penalties or disqualifications.

## Conditions for a restart

- fire on the track
- collapsed obstacles
- people on the track or other unsafe conditions
- false start
- Holeshoot rule

## False Start

Falling of the start block will be considered as a false start.

During qualifying:

A false start will result in an abort and warning for all current pilots. Another false start in that race will result in deletion of the pilots first lap.

If a false start is missed by the officials and the false start is brought to attention right after the race, the officials will review the DVR and make a decision. If the pilot that jumped the gun gained an advantage his first lap will be deleted

During finals:

A false start will result in an abort and warning for all current pilots. A second false start will result in disqualification for that race.

If a false start is missed by the officials and the false start is brought to attention right after the race, the officials will review the DVR and make a decision. If the pilot that jumped the gun finishes in an advancing position, the other advancing pilot will keep his position. All non-advancing pilots and the pilot that jumped the gun will re race for the remaining advancing position.

## Fly until the whistle blows

Pilots must continue to race unless one of the race leads or the timing system calls for landing. Calls from other pilots, spectators and others have to be ignored.

## Practice

Practise and warm up heats will be handled like qualification heats beside following points:

- Pilots will be grouped by random
- There is no claim for results/reruns in case timing system fails

## Qualifying

Race duration is 120 seconds. Goal is to fly your fastest 3 consecutive laps in a race. It is not mandatory to fly all 120 seconds and therefore damage your batteries. Timing for each pilot starts after the first pass of the timing gate.

Qualifying races will start staggered with call out of the drone numbers.

In case a pilot missed an obstacle he must go back and pass the obstacle again. In case he doesn't re-approach, the timing for this lap will go on until he reaches the missed gate and passes it correctly.

The best 50% of your qualifying results will be added up. The lowest overall time will be the top qualified pilots, others following in ascending order.

In case the amount of qualification heats is uneven the amount of used results will be  $(n-1)/2$ .

In case pilots were not able to get enough results, each one missing will be replaced by a "120 seconds" result.

## Finals

Based on the qualifying results pilots will be seeded into groups of four.

Finals mode will be double elimination with the best pilots per group advancing in the winners bracket and the two remaining pilots will drop into losers bracket or out of competition.

Final races will start on the tone. The whole procedure is:

"Pilots, arm your quads" call out

Three tones in 1 second intervals

Random delay of 1...5 seconds

Single tone to start

"Pilots, arm your quads" \_beep\_beep\_beep\_pause\_beep

Finals are "first to x laps" where the amount of laps will be determined on the race weekend and adjusted to the track length.

As soon as the first pilot finishes the designated amount of laps all other pilots are in their last lap.

The final 4 pilots will end the event in a “chase the ace”. Winner is who gets two wins. The rest of the podium will be split by the lowest combined positions of these races. Tiebreaker being motocross style - ranking of the last race is determining the overall ranking.

## Disclaimer

These rules are written by a non native English speaker. In case there are questions, unclear instructions or wrong used names talk to us! It is not allowed to use translation mistakes for your own advantage. In case this is violated there will be warning, penalty, rerun, disqualification or other measurements to clarify the situation, undo the gained advantages and resolve the mistake!