



How to Start FPV Drone / Quadcopter / Multi-Rotor Racing UK

If you're reading this article, I'm assuming that you are familiar with the basics of flying First Person View (FPV) multi-rotors and are now looking to dive into some racing to put your skills to the test.

FPV racing is a niche hobby, and when starting out, I personally found it was not obvious where to find events, how to compete and what was required. This article aims to help you navigate the UK FPV racing scene.

The UK has a variety of great FPV clubs with friendly and talented communities that are always open to newcomers. Joining a club can help you find people to race with, practice, and improve your skills.

It's not all so serious! Don't be put off or intimidated by skill level, by that I mean the insane speed of the flight videos you may have seen some of the top pilots uploading! Pilots of all ages and skill levels attend the racing events and FPV clubs, that's what makes the community so great. It is almost guaranteed you will find a nemesis i.e. someone who will be at a similar skill level that you will be able to race against / chase to push yourself forward.

Where to Find UK FPV Racing Events

InsideFPV (iFPV):

- **Event Listings:** All major FPV racing events are listed on the insideFPV website - <https://www.ifpv.co.uk/>
- **Create a Profile:** To sign up for events and track your racing stats, create a profile on iFPV.
- **British Qualifying Events (BQE):** Events marked with a star and "BQE" are British Qualifying Events. Participating in these earns points towards qualification for the British Drone Racing Championship.

British Drone Racing Association (BDRA):

- **Membership:** Join the BDRA - <https://bdra.uk/> for £10 per year to have your points count towards the British Drone Racing Championship and to receive event discounts.
- The BDRA website is a great source for finding local clubs.
- You will need a BDRA membership in order for your points to count towards the overall championship and to receive your invite to the finals at the end of the season.
- **Pilot Information Packs:** Race organizers will send out information packs ahead of each event, so be sure to read them for race day details.

British Model Flying Association / British Drone Flyers (BMFA & BDF)

The BDRA mentioned above is a specialist body of the BMFA. The BMFA also recently started the British Drone Flyers, a membership specifically aimed at providing for the drone community. The only real difference being that the BDF members do not receive a printed copy of the BMFA monthly magazine – BMFA News.

The BMFA have done amazing work in defending the hobby and working closely with the CAA during the consultation process for our newest regulations for UAVs. The BMFA not only provide you with the required insurance but also a body that are active in organising events, providing competency tests and training, keeping the hobby alive etc and have been doing so for over 100 years (model flying in general that is).

For FPV racing BMFA/BDF insurance is accepted by all clubs unlike other drone insurances available.

Where to Find FPV Clubs

1. BDRA Website:

The **British Drone Racing Association (BDRA)** has a list of active FPV clubs in the UK and their contact details. For more information, visit:
<https://bdra.uk/clubs-in-the-uk/>

2. Social Media Groups:

- Many FPV clubs operate through **Facebook** groups or Discord which are listed in the BDRA club link above. Some other useful ones to join include:
 - **FPV Racing and Freestyle UK**
 - **Drone Junk Yard UK**
- These groups are excellent for connecting with like-minded individuals, sharing advice, and finding local racing opportunities or deals.

3. Local Clubs:

Even if you're not immediately interested in racing, joining a local FPV club is a great way to participate in fun flying sessions and meet-ups. Or if you are nervous about signing straight up for a race day, check out your local club first.

Being part of a local club is especially useful in having the correct and proper flying space for FPV as it gives you a safe environment to fly while not causing damage/upset/injury to public or in general attracting unwanted attention for the hobby. Not to mention with all the new regulations for UAVs/model aircraft finding somewhere suitable that you are permitted to fly is becoming increasingly difficult.

Many clubs offer the opportunity to fly as a guest before joining.

An overview of the club I am a member at:

Eynsford Model Helicopter Club (EMHC)

- **Club Overview: Eynsford Model Helicopter Club (EMHC)** is a longstanding BMFA (British Model Flying Association) RC helicopter club that expanded its membership to include multi-rotors a few years ago. The club is based in the South East (Kent/London area located near Brands Hatch).
- **Facilities:** EMHC boasts a well-maintained private flying field with all the racing gates, ladder towers, and obstacles needed for FPV racing and training. This provides a safe and dedicated space for FPV enthusiasts to fly.
- **Membership Benefits:**
 - o Access to the flying field 364 days a year.
 - o A safe, private environment for flying, which is especially important with increasing regulations for UAVs and model aircraft.
 - o The cost of a membership is more affordable compared to the cost of purchasing, storing, and maintaining equipment like race gates.

- **Contact Information:** If you're in the South East area (Kent/London) and want to visit or learn more about joining, you can contact the EMHC committee directly via the following email:
 - o **Email:** committee@emhc.bmfa.club
 - o **Facebook:** <https://emhc.bmfa.club/fpv-quad-racing/>

Basics Required to Participate in Organised FPV Racing

1. Aircraft:

- **Rotor Size:** Up to 6-inch rotors and 6S batteries. While anything goes in racing (including 6-rotor or freestyle builds), the majority of pilots use **custom-built 5-inch racers** with 6S batteries.
- **BDRA Rules:** For official event guidelines, check the <https://bdra.uk/current-rules/> (but don't worry about studying these in great detail, all will become clear as you progress through the hobby).

2. FPV Feed & Radio Control:

- **Video Transmission:** Use only **analogue or HDZero** video systems, set to **25mW**. Unfortunately, **DJI** and **Walksnail** digital video systems are currently **not supported** for organised racing events.
- **Radio Control Equipment:** Most pilots use radios that support OpenTX/EdgeTX with a module bay (e.g., Radiomaster TX16S, FrSky Taranis etc).
- **Radio Control Link:** The most popular systems for racing are 2.4GHz (most common) and 868MHz. High-speed, low-latency systems like ELRS, Immersion RC Ghost, and TBS Tracer are commonly used.

3. Field Charging & Spare Battery Packs:

- **Number of Batteries:** You will typically fly around 8-10 qualifying heats followed by 3 final races. Having 3-4 battery packs in rotation is sufficient for the day.
- **Charging:** You may need to charge batteries at the field. Generators are permitted at most race events, or they may have electricity available on-site. Larger field packs (e.g., 2 x 6S 10,000mAh) can be used with DC chargers. If you are in a squeeze others are normally happy to help out and may be willing to share their generator with you!

4. Other Considerations:

- **Spare Props & Parts:** Always bring extra props and parts in case of damage during the race. Most common spare parts needed would be motors, antennas & frame arms.
- **Comfort Items:** Bring a chair and table. Since most events are outdoors, pilots often bring gazebos/tents or fishing brollies for shelter from rain or sun. However, this is optional.
- **Insurance:** Either BMFA/BDF or FPVUK insurance is required. Note that not all clubs accept FPVUK insurance and may require temporary BMFA cover to be arranged.
- **CAA Operator ID & Flyer ID:** You must have a CAA Operator ID and Flyer ID. If you don't have these, register for the BMFA membership and take the CAA online competency test to obtain your Flyer ID.
- **Failsafe:** Your quadcopter must have an appropriate failsafe set, which will cut the power to the motors in the event of a signal loss with minimal delay.

5. BMFA Membership:

- Sign up for BMFA membership for insurance & Operator ID.
- Provides other benefits other than just insurance, BMFA magazine, BMFA events, Qualifications/Certificates etc etc

Key Points:

1. Finding FPV Racing Events:

- Events are listed on **insideFPV (iFPV)**, where you can create a profile to sign up and track your career.
- **British Qualifying Events (BQE)** are part of the **British Drone Racing Championship**.
- To compete in the championship, join the **British Drone Racing Association (BDRA)** for £10. Membership includes event discounts.

2. FPV Clubs in the UK:

- FPV clubs are great for both racing and casual flying. The **BDRA** website lists active clubs across the UK.
- Clubs often use Facebook and Discord for updates.
- **Eynsford Model Helicopter Club (EMHC)** in Kent is an example of a BMFA club offering a private flying field.

3. Required Equipment for Racing:

- **Aircraft:** ideally a 5-inch prop drones with 4S or 6S batteries.

- **FPV Feed:** Analog or HDZero video systems with 25mW transmission.
- **Radio Control:** Popular control link systems include ELRS, Immersion RC Ghost, and TBS Tracer.
- **Charging:** Portable field charging solutions, such as generators or DC chargers.

4. Race Day Essentials:

- Bring spare parts, charging gear, batteries, and shelter (e.g., gazebo or umbrella).
- Ensure your drone has a **failsafe** to cut power on signal loss.
- **Insurance:** Join BMFA or FPVUK for insurance, with BMFA being accepted by all clubs.
- You'll need a Flyer ID and Operator ID from the CAA for legal flying.

5. Useful Links:

- **insideFPV (iFPV)** for events and race registration:
<https://www.ifpv.co.uk/>
- **British Drone Racing Association (BDRA)** for membership and event details: <https://bdra.uk/>
- **BMFA** for membership and insurance: [Join Us - British Model Flying Association](#)
- **CAA** for Flyer and Operator ID: [CAA](#) (N.B. Operator ID can be renewed via BMFA portal)

Recommended Starter Kit / Shops to Buy from:

For recommended starter gear there is tons of info out there. Also arguments for and against the use of bind and fly. If you are wanting to race FPV drones you will 100% need to learn to solder well and how to build your own quad, but a BNF is always a good starting point in my opinion. (As you know the drone should be built and fly well which you can then learn to fix rather than having to learn everything for your first build!

Best bet is to go to your local clubs and discuss with them re your starter kit. There may be some good deals available. Also to post on the facebook groups etc.

Some of the best shops in the UK with racing parts available:

- <https://www.hobbyrc.co.uk/> (UK HDZero official stockist)
- <https://www.unmannedtechshop.co.uk/>
- <https://yourfpv.co.uk/>

- <https://www.flyingtech.co.uk/>

- <https://airjacker.com/>

Conclusion

Starting FPV racing in the UK requires the right equipment, some basic understanding of the rules, and a willingness to engage with the community. By joining local clubs, participating in races listed on iFPV, and following the guidelines, you can quickly immerse yourself in the exciting world of FPV racing. Good luck!

P.S. Hours give you powers! Jump on a decent simulator if you can, Velocidrone is the best for racing.

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February 2025