

"TinyWhoop" FPV Racing

- What do I need?
- Where are we racing?
- When will this take place?

What Do I Need?

- 1S Batteries
- "TinyWhoop" style micro drone
- 6 channel transmitter
- Goggles These are not REQUIRED, but flying the gates through FPV is a preferred and more precise flight!

1S Batteries

LiHV batteries recommended



Micro JST (JST-PH 1.25) vs JST-PH 2.0

- Micro JST connectors found on some planes like the HobbyZone Park Cub S, UMX Vapor, and Inductrix/ Inductrix Pro
- JST-PH 2.0 used on Eachine Trashcan, NewBeeDrone Acrobee
- 6 batteries for \$25-35 through Amazon. eBay,
 NewBeeDrone, etc

Charging

- A parallel charging board or dedicated charger is recommended for charging
- A charger that supports LiHV is recommended
- Parallel boards run anywhere from \$6-10 via
 Amazon, Banggood, eBay, HobbyKing and more.
- Dedicated LiHV chargers run anywhere from about \$15-\$50



Recommended Drones



Inductrix Pro



BeeBrain Lite



Eachine Trashcan

Betaflight Tuning Capability

DSMX or FrSky protocol

Standard size for Micro/TinyWhoop classification

Inductrix Pro



MSRP \$79.99

- DSMX Protocol only
- Brushed Motors
- Purchase through Discount Hobby Warehouse, RC Hobbies, Ampdraw Hobbies, or online through Horizon Hobbies and Amazon.
- uses JST 1.25 Micro connectors on 1S batteries; recommended to replace with JST-PH 2.0 instead

Eachine Trashcan



Approx. \$90-\$100

- Purchase through <u>Banggood.com</u> or <u>AliExpress.com</u>
- Brushless motors
- Uses two 1S batteries in series, or one 2S battery
- Available with DSMX, Frsky, or Flysky protocol
- Battery Connectors are JST-PH 2.0

Acrobee Lite



\$99 Standalone, \$199 RTF Kit

- DSMX or Frsky/Futaba Protocols (Futaba requires a Firmware Flash)
- Brushed Motors
- Purchase at Discount Hobby Warehouse, or online from <u>NewBeeDrone.com</u>, <u>GetFPV.com</u>, <u>RotorRiot.com</u>, or Amazon
- Uses JST-PH 2.0 connectors

What do I need?





6 Channel Transmitter

- 6 Channel radio required for pitch, yaw, throttle, and roll, as well as throttle cut/ arming.
- Most quads use either Frsky or DSMX protocols; make sure you pick the one that will work with your radio!

Goggles

Box Goggles

Big, bulky
Many will allow for wear over glasses
Single, larger screen that is easier for some
to view clearly
Significantly cheaper than the Fatshark style
goggles; prices range from \$60-\$100



Fatshark Style Goggles

Slimmer design
Binocular screens; some people find issue
due to Inter-Pupillary Distance (IPD)
Expensive compared to box goggles;
typically run \$350 and up



Where Will It Happen?



We've planned this area for rolling ground to add some challenge, as well as preventing it from interfering with flying at the runway. There are some other options that have been suggested for the Tiny Whoops, such as the "Bowl" area to the left of the pits or out by the other storage containers at the back of the parking area, but for right now, this is where we are considering flying.

When Will It Happen?

Sunday, September 22

Initial Course layout, gate setup, and course prep

Sunday, September 29

Test N' Tune - Go over basic configuration and Betaflight tuning, as well as course practice

Sunday, October 6

Race Day! - We'll set up some informal races, run through and see who can make the most laps in 2 minutes, then do 1 lap each to see who can make it around the course in the shortest amount of time. We'll also follow up with DRONE - Power loop a gate, fly through inverted or backwards, etc. Miss and get a letter. Get DRONE, and you're out!