

RC REPORT

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When I first saw the Orbit my reaction was, “Oh great, not another drone,” but this quickly changed when the box was opened. Inside was this tiny disc of a compact folded-up multirotor that as the name implies fits in a shirt pocket. Not only that, but it also incorporates the currently extremely popular FPV into its list of features.

To get started, the Orbit has a width 3.325 inches (8.6 cm) when folded and spans 5.75 inches (14.6 cm) with the arms extended. The machine has a height of 1.25 inches (3.2 cm) and it weighs all of 1.3 ounces (36 grams) ready to fly. As with all of today’s drones, regardless of the size, there’s an all-in-one circuit board containing the receiver, multiple ESCs, gyros and all of the accelerometers needed to govern the platform’s flight characteristics.

Included in the package, beyond the multirotor itself is the transmitter, two 1S, 3.7V, 300mAh lithium flight batteries plus a USB charger. A really nice fold-up gizmo that turns into a headset once a phone has been added as the viewing device, along with a transmitter mounted phone cradle for those of us that don’t care for a headset. Also included are two spare sets of rotor blades, a small screwdriver should maintenance be required and a cloth pouch to carry the drone around without it getting damaged.

Charging the flight battery using a USB charger is by now standard, but for those who’ve not been exposed, plug the charger into a spare USB port on your laptop or into a USB wall outlet, and then plug the flight battery into the charger.

The Orbit is close to an “everything needed in one box” offering, but it will require the purchaser to supply four AAA dry cell batteries for the transmitter. This can be confusing as with some of today’s offerings the batteries are included, and with some they are not. Always check on the requirements of a package before the customer leaves your store. Nothing ruins a Christmas morning more than trying to find a store open for a last minute dash to buy batteries.

You’ve heard Dennis Andreas and I preach this until we’re blue in the face—usually to no avail—but once again read the instruction manual while the flight batteries are charging. In the case of the Orbit, the transmitter’s functions are somewhat different than the experienced pilot will be used to. As an example, the transmitter style is that of the common game controller design, that’s nothing new, but the push buttons located at the left stick, those that are usually left and right rotation trim, are used in the Orbit as motor initialization and liftoff functions, so



Compared to a standard business card it is easy to see that with its arms folded the Orbit truly is a pocket-size drone.

there is no rotational trim. The pilot must take care of any rotation with his thumb, but the four trim buttons located at the right stick work as usual, fore/aft and left/right.

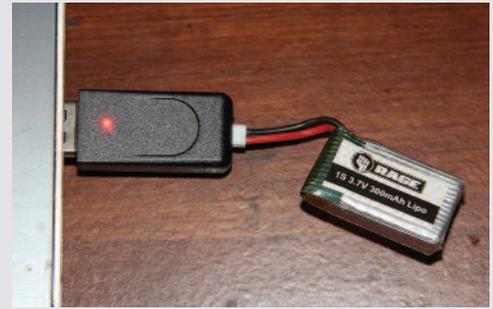
From this point on, flight operations are pretty standard. With a freshly charged battery installed extend the arms, press the on/off button on top of the Orbit’s body, and then turn on the transmitter. If there isn’t an instantaneous connection between the transmitter and platform, the LEDs on the Orbit will flash quickly until the connection is made. Once the LEDs are glowing solid the tiny machine is ready to commence flight. A quick push of the left, motor initialization, button will get the rotors turning and lift off can then be made either by applying throttle using the left stick as is the common method, or by pressing the liftoff button, which may be the lazy man’s way out, but with no apologies offered it has become the personal SOP or standard operating procedure of this reviewer.

As with most drones, the Orbit uses multi-colored LEDs to help with orientation, plus the green rotors are the ones that should always face forward. In addition the Orbit also includes three flight sensitivity functions from beginner to expert, along with a platform orientation mode. In addition it also has a flip button located on the upper right portion of the transmitter. In order to get the Orbit to flip, simply press the button (a series of beeps will let the pilot know he is

temporarily in 3D mode) and move the right stick in the direction of the desired flip.

Now comes the fun part, that being first person view. Located both on the box, and in the instruction manual are two QR (quick reference) codes, one is iOS for apple devices and the other is for android. Note: *There are only the QR codes, no website listings and if you are close to losing the sale because the customer says he's not familiar with QR, either offer your assistance, or grab the closest grade schooler; he'll be happy to help.* Once scanned, the app VS_UFO will appear on the phone or other device being used and this will need to be downloaded into the device. Since the Orbit's FPV works on WiFi the user will need to enter the network options on his device and select the network AIR-FUN_UFO-#. Once this is done open the app VS_UFO and FPV will be working (It is easier and faster to do than to explain).

I've openly admitted even though I'm trying, and I am getting better, I don't like the claustrophobic feeling I get when wearing a headset. The limited periphery headsets used with the radio control hobby prevent the situation awareness that was drummed into me during my previous career. I do, however, have a lot of fun with FPV using a monitor, or in the case of the Orbit, with a phone mounted to the transmitter. I'll never be a professional



Charged via the now standard USB connection, the Orbit includes two 3.7V 300mAh lithium batteries providing flight times of between five and eight minutes depending upon the use of FPV and aerobatics, which is pretty standard for drones in this size category.

Rage Orbit FPV Pocket Drone

drone racer, that's not the intent of the Orbit, but it's an absolute gas flying around the house while sitting at the kitchen table. That said, thank goodness for the "emergency" kill button to

stop the rotors from spinning. Damage to the drone can be hid; damage to the furniture isn't so easy to hide.

Due to its size, especially when folded, most would feel the Orbit is primarily an indoor drone, but provided the wind is relatively calm the little machine handles the outdoors quite well. Although the FPV function, at least in my experience, was pretty much washed out in bright sunlight rendering it pretty much useless. That doesn't mean it isn't fun flying the machine outside, quite the opposite is true.

I really had a better time flying this platform than was first imagined when all I could think of was not another drone. As mentioned, when the box was first looked over there weren't a lot of happy thoughts, but the folding aspect along with the unit's portability add a whole different dimension to a market that is way beyond the point of saturation. The Orbit has turned out to be a really interesting product and it is available at a very competitive price point.

So what is smaller than a fidget spinner—at least when folded—and a whole lot more fun? Hopefully that question has been answered during the evaluation. With its FPV capability there are many possible scenarios for the machine. Not only can it be used like most drones to play around with aerobatics with or without the use of FPV, but just about anything from the lesser experienced FPV pilot (myself included) using one to practice flying around the house, to racing events at the club level while interested members fly through hula-hoop type rings at the end of the club's monthly business meeting.

Like all Rage products, the Orbit FPV Pocket Drone is available exclusively through HRP Distributing. **HM**



The included headset is a fold-up device that when opened uses a standard cell phone as the viewer and all things considered, it works rather well.



Like most drones the Orbit has LEDs to assist with orientation, but in this case they are small and not terribly bright, so it is best for pilots to concentrate when flying the platform instead of relying on aids.