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## Multi-Rotor Mania

**Most dealers feel drones will be the hot ticket again this season.**

**T**hey took the industry by storm. I really doubt any dealer realized just how popular they would become, and it looks like for the third year in a row, multi-rotor platforms will again be the hot seller this Christmas season.

This isn't a statement made carelessly; to come to this conclusion an informal (very informal) survey was conducted with a number of dealers from a broad demographic. The basic questions were: Are small quads from micro to the 250mm size units going to be the hot seller again this year? Are larger camera equipped model drones still popular? Are you having any problems with the renegade user? These are the guys who caused all of the problems we're now facing and will fade back into the woodwork as quickly as they emerged.

Obviously not every dealer in the country could be polled. As mentioned, this was very informal. Generally the questions were asked when I was contacted about something noticed in the magazine or when an individual was active on social media. Exactly like the different personalities that own and operate hobby stores, the answers were varied and ran the entire gamut of possible responses, from "They are here to stay," which doesn't answer a single question, to "I wish they'd go away completely."

Discounting those two extremes, most dealers had informative answers. The widely felt opinion is that micro quads are impulse purchases and will again be the number one hobby related holiday stocking stuffer. Larger platforms, such as the 200mm/250mm size units, have slowed ever so slightly but are still regular movers. Larger 350 size camera carrying model drones are at a crawl. This is understand-

able, as not only are there nationwide legal issues still to be resolved, but purchasing one of these units requires careful thought before making a rather substantial financial investment.

Most dealers were appreciative of the diversity of the customers multi-rotors have brought into their stores. Everyone felt quads were a positive influence on shoppers. People who, without the draw of a multi-rotor platform, may never have walked into a hobby store have been exposed to the vast assortment of opportunities and are now regular customers.

The number one complaint was margin. The margin on some of these units is simply too small to justify the investment in inventory dealers are expected to carry. This was closely followed by competition from off-shore suppliers, which seems higher than in other segments of the industry. Trying to get the public to understand the rules and regulations involved in the proper operation

of these devices can be a real headache. And of course replacement parts. Considering the predicted lifespan of some of these platforms, I can appreciate, from a manufacturer's point of view, not having volumes of replacement and repair parts waiting in the background. Distributors don't like sitting on dead stock any more than dealers.

These were the opinions of an impromptu selection of dealers. You may or may not agree in part or in entirety with the comments. But now that we know the average dealer's thoughts on the subject of multi-rotor platforms, it's time to take a look at a few selections that are going to put smiles on the faces of a lot of your customers this year.

**Revell Control Nano Hexagon** is the latest offer-



*Revell Hexagon is a great flying little machine, which is aimed more towards the experienced pilot.*



*Indoors is where micro units like the Estes Proto Z really shine, as the risk of any damage is minimal.*

ing from this well established company. Let's face it, this is America, and what that means is if four is good, six is better. Why else would there be a calling for a six blade micro size multi-rotor platform? All kidding aside, this is a really nice unit. The Hexagon is packaged in a bright window box, which clearly shows the product. Three modes of operation are available: Beginner, Normal and Advanced. The Hexagon is easy enough to fly, but even in beginner mode a little experience would be a big help. Bright LEDs assist with pilot orientation. Flips are performed by pressing the right stick, thereby entering the flip mode, and then they are done based on the direction the stick is moved. To exit the flip mode, the stick must be pressed again. Available in two colors, black or orange, everything needed, including the two AAA size batteries for the transmitter, is part of the package. The instruction manual is easy to follow and includes a parts breakdown and troubleshooting guide. As mentioned, this one is geared more towards the more experienced pilot, but for a micro, it has proven to be an absolute blast to fly.



*The latest offering from the Estes line of quads is the Proto Z, which is larger than most micros.*

The Proto was the first micro and is the one credited with beginning the micro quad craze. Since its introduction, the Proto has undergone a number of changes. The latest offering in this line of quads is the **Estes Proto Z**. Advertised as a beginner's platform, the Proto Z is a small unit, but it is slightly larger than the previous releases of this product. Like almost all quads in this range, the package is complete, only requiring two AAA size batteries for the transmitter. The Proto line has continued to evolve with the Proto Z now featuring True Direction Mode, something that newer pilots seem to like as it takes direction orientation away from the user. Move the right transmitter stick back, and regardless of the direction the quad is facing, it moves backwards. The same goes for any direction the stick is being moved. Another feature of the Proto Z is one button flip. If the pilot wants to flip the quad to the right he pushes the right flip button, the same goes for a left flip. Pretty easy considering the amount of time it can take to learn even basic aerobatics.

The flight battery is built into the platform and charges via a USB connection. Included is an easy to understand instruction manual printed in a couple of different languages besides English. At the end of the manual is a handy troubleshooting guide.

An outstanding product for the beginning quad pilot,



*The Dromida Ominus FPV and Vista perform admirably, even in the confines of a small yard.*

the Proto Z seems to work best indoors. Even in calm weather, it doesn't feel like the Proto Z is under complete control when operating the little unit outdoors.

My absolute favorite among the aerial platforms tested in the next size range is the **Dromida Ominus FPV**. This is an aerial platform that seems to fit the bill for what I would be looking for if I were shopping for a similar product as a holiday gift idea. Unlike most FPV quads on the market, the Ominus uses a smart phone as a monitor, thus helping to keep the price in check. Just about everyone has a smart phone, so this shouldn't be a problem, but it's still worth mentioning to the purchaser just to make certain. Nothing could be worse than for a potential pilot to open the package only to find he doesn't have everything (nor in some cases are the parents willing to acquire the phone) needed for FPV control.

With a rotor spread of 238mm, the Ominus is considerably larger than a micro and this shows in its extremely stable flight characteristics. Using a combination of flight mode buttons and dual rates, there are four different



*The Vista is packaged in a container that protects the unit and doubles as a handy carrying case.*

modes of operation. Easy mode is just that. The platform is operated in low rates to prevent over-control, and the accelerometers are activated. This is the recommended setting for beginners and will allow the pilot to learn multi-rotor operation without getting himself in any real trouble. From Easy mode you can access Normal flying, which is the same settings but with high rates, allowing



*The Ominus FPV includes a bracket for the transmitter so a smart phone can be mounted as a monitor.*

for more positive control. From flying in Normal mode the pilot can move through the Advanced flight mode and into Expert, which uses high rates and has the accelerometers turned off, making the Ominus a rather aerobic machine.

Putting the platform into FPV (First Person View) is simplicity in itself. In my day an app was something you filled out when looking for employment, so for some, this can be uncharted territory. Even though I might be a little older than the average end user, it was still easy enough to understand. The manual offers step by step instructions on downloading the appropriate app from either Google Play or the Apple Store. From there you simply apply power to the Ominus and the built-in camera transmits live feed to the phone.

I've mentioned this several times, but FPV is not intuitive. To get good at it requires a pilot to practice and practice some more. I've tried flying by FPV several times, and can fly around the house easily enough, but honestly I'm not certain I even see the draw. I do, however, like the live video feed to the monitor. Once the platform is in position, buttons on the transmitter start and stop recording. Having live feed takes the guess work out of the platform's position in relation to the target when doing a video stream, and for this reason alone, in my book, the Ominus FPV is a great deal.

The **Dromida Vista** is the latest in a line of quad products offered by this company. With a span of 251mm, the Vista is larger still than the Ominus. The Vista is not simply a larger version, but it's a completely new design. Touted as being "dynamically durable," the Vista is really a pretty tough product.

The weak link in all quads are the booms. One ground strike at a bad angle and they snap, which means the platform is out of service until replacement parts can be acquired, something that angers customers and irritates dealers, as a broken quad (or any



*The camera that comes with the Ominus may be small, but it is nonetheless a high-definition unit capable of acceptable live feed and video.*

hobby product) is nothing more than useless junk. What Dromida has done in its design of the Vista is to span the outer perimeter of the booms with a support structure.

I'm not an engineer, but common sense will tell you any impact loads will be dissipated as they are transferred away from the arms to different areas of the platform.

The Vista uses the same four flight modes as the Ominus, but that is where the similarities end. This a completely redesigned unit and there are no interchangeable parts. Included with the Vista is everything needed to fly: the quad, transmitter along with four AAA batteries for the game controller style transmitter, extra blades, LiPo flight battery and a USB charger. The instructions are complete and provide the necessary legal warnings



*To build strength into the platform, the Vista uses a support structure spanning each of the booms.*

along with a nice trouble shooting guide and a complete parts breakdown.

Like all of the Dromida multi-rotor platforms, the Vista has the look of an alien creature that's hunting for prey. The Vista is available in four colors: blue, green, red and white. There are a number of LED lights located on the arms, frame and canopy that blink and flash, adding to the fun of flight, especially when flying in a pitch black area.

For end users that find the included game controller

style of transmitter a little small or a bit uncomfortable for their hands, the Vista can be flown with any Tactic protocol six or more channel transmitter, as long as it has a programmable helicopter mode of operation. Six channels are the minimum needed to control all of the features that are part of the Vista platform.

Only but a smattering of offerings from the respective companies, all of the multi-rotors featured are reliable units that when used as intended, performed exactly as the manufactures stated.

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