

MICRO QUAD MANIA

The invasion of the ultra-micro quad has taken the hobby by storm

by Dennis McFarlane

I certainly don't have to tell dealers of the impact the ultra-micro quad has had on the industry. It seems like instead of coming into your store to pick up building supplies and accessories, all customers are interested in is taking home one of these tiny quads to fly around their abode. From the customer's point of view this is understandable. These little things are not only entertaining, they are ridiculously inexpensive.

Still, regardless of how insignificant, a sale is a sale and all dealers are happy when money moves through the cash register. Listed are four of the more popular ultra-micro, or nano (depending on the manufacturer's designation) size quads dealers inventory. The order of the listing has nothing to do with performance or preference, it is simply alphabetical.

Each of the listed ultra-micro quads use a system of gyros and accelerometers to stabilize the platform. The reaction time with this system is hundreds, even thou-

sands, of times faster per second than our eyes can see and our brains react, this is what makes them work as

well as they do. Actually the quads can be tossed in the air, throttle applied and regardless of the platform's orientation, within moments it will automatically return to the upright position and enter a hover.

It is noteworthy to mention the pace of UAS development is so rapid, even with these tiny nano or ultra-micro platforms, that the original Proto X, the product that was introduced into the market only a couple of years ago and the quad that began the ultra-micro multi-rotor craze, is already being phased out of production.

Although these tiny quads are regularly flown successfully

by children and adults of all ages, for a variety of legal reasons, most notably the CPSC (Consumer Product Safety Commission), the quads featured are all recommended for users age 14 and older. **HM**

“From the customer's point of view this is understandable. These little things are not only entertaining, they are ridiculously inexpensive.”

Blade Pico QX

Blade Pico QX is the smallest quad offered by the Blade division of Horizon Hobby. Measuring 50mm from motor to motor the platform has a blade diameter of 30mm. The batteries for both the quad and the transmitter are self contained. The aerobatic mode is entered by pressing the left transmitter stick while moving the right stick in the direction (fore/aft left/right) the pilot wants the quad to flip.

Included with the Pico QX is a transmitter, USB charge cord, extra set of rotor blades and an instruction manual which is printed in four different languages. The addition of propeller guards helps to minimize damage to the quad often caused by a rotor strike.



The Pico QX is the only one of the reviewed ultra-micro size quads that came with blade guards, something that is a big help in protecting the rotors, especially with new pilots who have a tendency to bounce their quads off walls and furniture.

Estes Proto X

Estes Proto X was the inexpensive ultra-micro quad that started the craze. The tiny quad measures 45mm diagonally between motors and weighs a mere 11.5 grams. Although not part of the original release, later versions of the Proto X are equipped with an auto upright feature that self-corrects the attitude of the quad regardless of the direction it is launched. Required to fly are two customer supplied AAA alkaline batteries. Available in a variety of colors, the Proto X transmitter is not programmed to allow the quad to perform any type of aerobatics.

Included with the Proto X is the transmitter, instruction manual, USB charge cord for the flight battery and an extra set of rotor blades. Estes is a proprietary brand of Great Planes Dist.



The Proto X is the unit that started the ultra-micro craze. Although it's only been a couple of years, technology has advanced so quickly the original Proto X is being phased out.

Estes Proto X SLT

Estes Proto X SLT has been designed to replace the original Proto X, which is being phased out of production. The quad's platform shares the same size as the Proto X, but SLT (Secure Link Technology) protocol allows use of either the included transmitter, a Tactic transmitter, or any alternate brand of transmitter equipped with an AnyLink adapter. This feature allows a pilot to use a transmitter he's more familiar with, and it allows the experienced pilot to perform some extreme aerobatics.

Included with the Proto X SLT is a "game controller" shaped transmitter, instruction manual, USB charge cord, and an extra set of rotor blades. Needed to fly are four customer supplied AAA batteries for the transmitter.



In using SLT protocol, the Proto X SLT can be flown not only by the included game controller style transmitter, but any Tactic or popular brand of transmitter that is equipped with an AnyLink adapter can be used to fly the quad as well.

HobbyZone Faze

HobbyZone Faze is described as an ultra-small quadcopter aimed at the beginner. The ready-to-fly weight is 12.2 grams. The transmitter features three transmitter selectable rates; low, medium and high. The chassis-mounted flight battery is rechargeable, but the transmitter requires two customer replaceable AAA alkaline batteries which are included in the package. Flips are performed by pressing the right stick to enter the aerobatic mode, then moving the stick in the direction desired.

Included with the Faze beyond the transmitter is an instruction manual printed in four languages, USB charge cord for the flight battery and an extra set of rotor blades. HobbyZone is a division of Horizon Hobby.



Aimed directly at the beginning quad pilot, the Faze has three transmitter activated flight modes that allow the purchaser to perform all sorts of aerobatics as his piloting skills progress.