

FOCUS



GADGETS

Floating On Air

DRONES OFFER A
NEW PERSPECTIVE
BY DAVID HEURING

▶▶ UNMANNED AERIAL vehicles—commonly referred to as drones—take advantage of smaller, more lightweight cameras and gyro-stabilization to make possible shots that might previously have required a helicopter. The smaller size of UAVs allows greater proximity to the subject, and their affordability means the steady, bird’s-eye view is within budgetary reach of many more projects and filmmakers. Which rig is right depends on the shot, the camera, the circumstances and the budget.

▶▶ **FREEFLY ALTA 8**
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Companies have sprung up to facilitate legal commercial drone operation through expertise in drone piloting combined with an understanding of conditions and capabilities, not to mention the insurance and permitting processes. The Federal Aviation Administration requires certification, and stringent safety regulations must be followed.

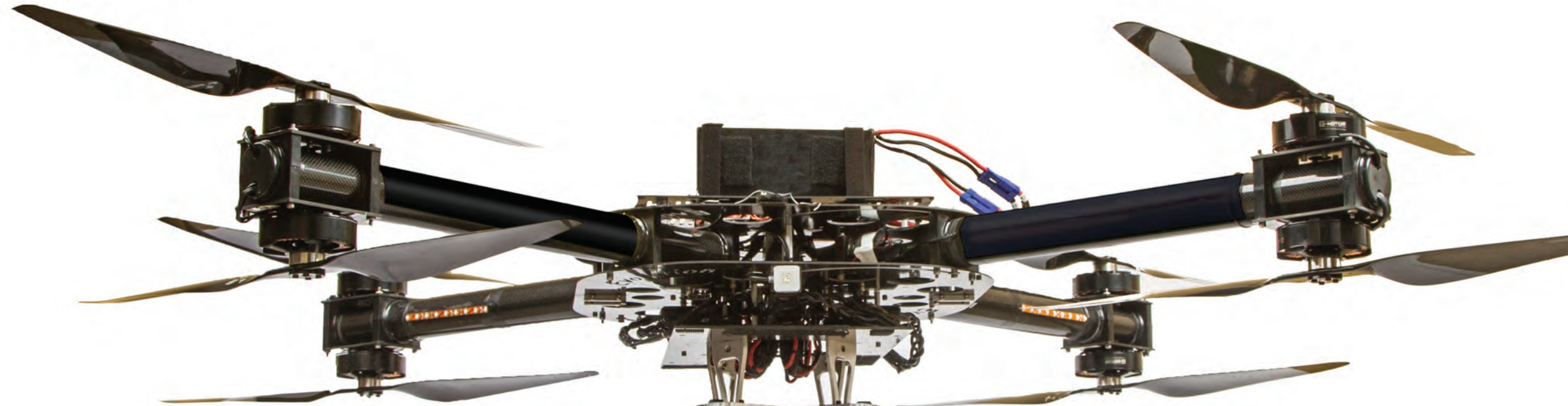
Here are three drone rigs currently being used in motion picture production:



▲ FREEFLY ALTA 8

The Freefly Alta 8 supports 20-pound payloads with eight rotors and is operated with a state-of-the-art Synapse Flight Controller. Freefly, based in Woodinville, Wash., is considered an innovator in brushless gimbal systems as well as aerial platforms. The Alta is compatible with MōVI (which they also make) and allows remote control of focus, iris and zoom. The ability to pilot a 45-degree tilt allows for smooth, sweeping turns. Some models can incorporate barometer and other data to hold position and repeat a flight path even in difficult weather.

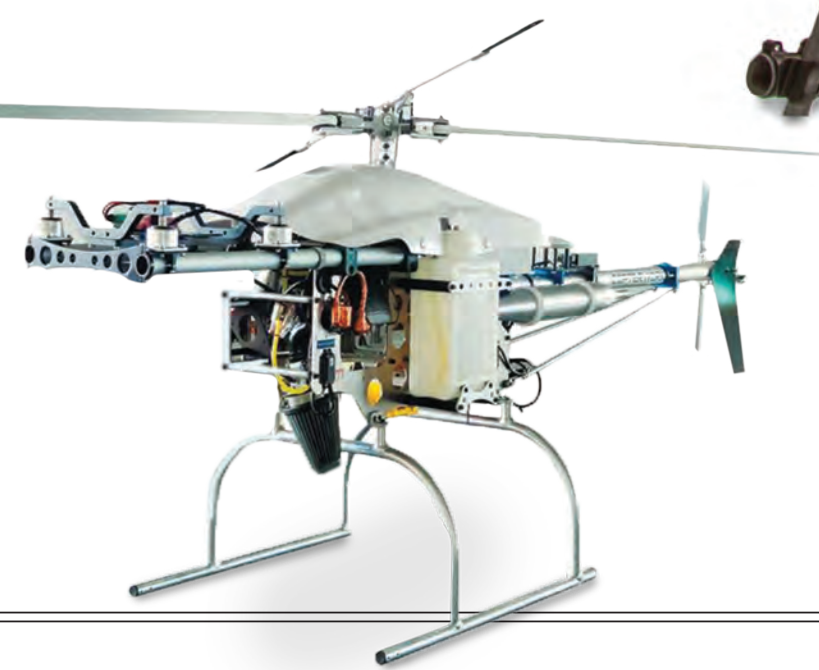
BY THE NUMBERS:
Compatible cameras: RED Helium, Dragon and Epic, as well as ARRI Alexa Mini and others
Lens support: 3-4 lbs.
Flight time: 10-15 minutes, depending on payload and altitude
Top speed: 30 mph



▼ COPTERWORKS AF25B + MōVI M15

The Copterworks AF25B uses a single rotor, and it looks more like a small helicopter than a multi-rotor drone. Glendale, Calif.-based Copterworks designed the machine to lift a 25-pound payload. Because it runs on gasoline, flight time and distance are significantly greater. Unfortunately, with a gimbal and camera payload, this rig exceeds FAA weight limitations, so it's currently used on motion picture production only outside the U.S. The AF25B enables hovering for long periods while waiting for action to occur.

BY THE NUMBERS:
Compatible cameras: RED Epic, Alexa Mini or similar
Lens support: 3 lbs. maximum
Flight time: 1 hour
Top speed: 60 mph



◀ TURBO ACE MATRIX X8

The Matrix X8 is one of the larger multi-rotor UAVs, capable of 1,200 pounds of thrust. The extra power, along with higher quality construction and communications, make it suitable for harsher conditions and higher altitudes—the Matrix X8 can tolerate winds of up to 40 mph. Focus, zoom and iris can be controlled remotely. Live feed video is an option with some cameras. Turbo Ace is based in Orange, Calif.

BY THE NUMBERS:
Compatible cameras: RED Weapon, Epic and Dragon; Alexa Mini; 3D Weapons
Lens support: 3 lbs., depending on total payload
Flight time: 18-22 minutes, depending on battery
Top speed: 30 mph



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PROJECTS:

- 1. Freefly Alta 8:** *Lion, The Avengers, Captain America: Civil War, Jurassic World*
- 2. Copterworks AF25B:** *Point Break, Shark Week*
- 3. Turbo Ace Matrix X8:** *Art of Flight: The Series, Panama Canal 3D: A Land Divided, a World United*

