



Drones are making a full transition from military devices to instruments used in everyday life. Unmanned aerial vehicles, which have been known mainly as a weapon of war, are expected to play increasingly key roles in business and civic affairs, from delivering packages to inspecting roads and bridges to taking fun photos.

Here are 13 companies investing, selling or benefiting from UAV technology, from the battlefield to your backdoor. At left, Deutsche Post tests a small delivery to its Bonn, Germany headquarters using a quadcopter drone.



Dajiang Innovation Technology, a privately-held drone manufacturing company based in Shenzhen, China, makes the DJI drones, which are popular among amateur and professional photographers for capturing aerial video or pictures. Manayunk Cleaners, a laundry company based in Manayunk, Pennsylvania, once used the DJI Phantom to deliver drycleaning. In San Francisco, a man used the DJI Phantom to fly in a wedding ring just as he proposed to his girlfriend. DJI drones range in price from \$420 for the basic model of the Phantom drone to \$11,000 for the “S100 Ready to Fly Octocopter” package.



Parrot EPA: Founded in 1994, Parrot is a wireless products manufacturer company, based in Paris, France, Parrot introduced its first drone, the Parrot AR Drone, in 2001, and has continued expanding its line of drones to include the Mini-Drone and AR Drone 3.0 Bebop. Parrot's drones are popular among hobbyists and hackers. Martha Stewart told Vanity Fair that she owns an AR 2.0 model, which she flies around her farm to take pictures. Serial hacker Samy Kamkar, who was jailed for creating a MySpace worm, developed a way to seek out other drones in the air, hack them and turn them into an army of UAVs under the attacker's control. Kamkar published the instructions for hacking drones on his website, which would be easy for anyone with Linux familiarity to follow and build in less than an hour.



Formerly known as Woodman Labs, Inc., GoPro develops, manufactures and markets pocket-sized, high-definition cameras often used in extreme action video photography. The lightweight cameras are commonly mounted to consumer-level drones. The company plans to sell up the \$427 million worth of stock in the IPO late Wednesday, for a trading start on Thursday. That would be the biggest consumer-electronics IPO since battery company Duracell International Inc's 1991 debut, according to Dealogic.



Airware, based in San Francisco, has developed flexible, cost effective autopilots that serve as the “brains” for drones. The autopilots have been implemented in drones that have delivered vaccines to remote locations in Southeast Asia and have flown over a conservancy in Kenya to track the whereabouts of the endangered northern white rhino, and possibly spot poachers. Last year, Airware announced a \$10.7 million Series A round of funding from Andreessen Horowitz and Google Ventures.



Matternet says it wants to bring the world its next-generation transportation system by developing a low-cost, low-energy network of drones to anywhere in the world, particularly places with inefficient or non-existent road infrastructure. Matternet’s drones can transport small packages for courier transportation in congested cities or vaccines to the developing world. Matternet was formed out of a 2011 team project at Singularity University, a teaching organization in Silicon Valley.



Skycatch uses small drones to capture data that property owners can use to keep track of large geographic areas. Skycatch drones have been tested by First Solar, DPR and SolarCity, one of the nation's largest installers of solar panels, which Elon Musk helped start. Skycatch has raised about \$13.2 million in equity funding, according to a Securities and Exchange Commission filing.



Denel Dynamics is part of South Africa's largest manufacturer of defense equipment. Denel Dynamics focuses largely on UAVs and integrated air defense. The company manufactures the Denel Dynamics Seeker, designed to perform tactical reconnaissance in real-time as well as conduct day and night surveillance.



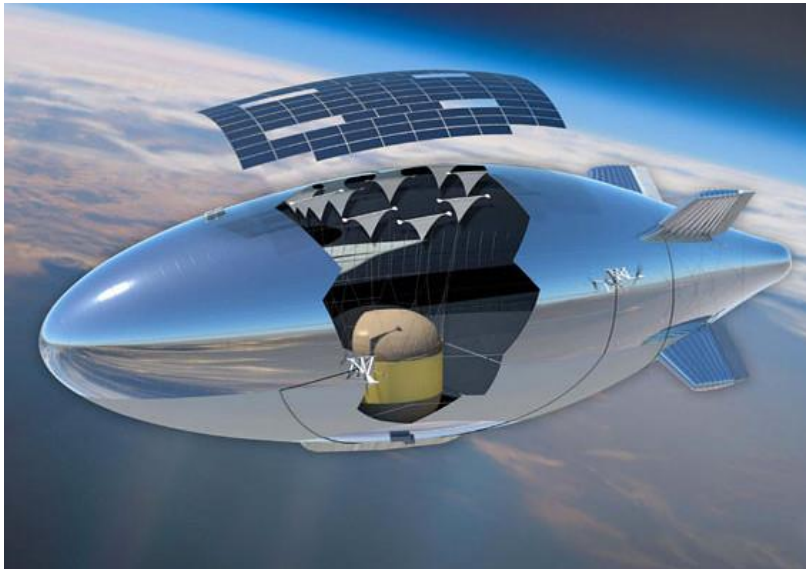
Facebook announced in March that it had brought on five engineers from Ascenta, a UK based company that develops solar-powered drones that could stay in the air for months, even years. The purchase was part of Facebook's Internet.org initiative aimed at expanding internet access to parts of the world where it is not yet available. A Chief Executive Mark Zuckerberg explains in a paper, Facebook is looking to develop a system of drones that can "fly as close to the ground as possible in order to maximize signal strength," but "at a high enough altitude where the wind is not very strong in order to maximize endurance."



Google in April announced that it was buying Titan Aerospace, a small company based in New Mexico with 20 employees. Titan makes drones that can fly nonstop for years. Facebook had reportedly also tried to buy the company, before opting to acquire Ascenta. Like Facebook, Google is looking to use drones as a way to expand the Internet's reach by beaming access to places with no cell phone towers or wired telephone connections.



Boeing has developed multiple UAVs including the Condor, which first flew in 1988 and set records by reaching a top altitude of 67,028 feet and staying aloft for nearly two and one-half days. Its ScanEagle, which first flew in April 2002, is four feet long and by 2006 surpassed 10,000 combat flight hours in less than two years, supporting US Marine Corps and US Navy operations.



Lockheed Martin's unmanned systems serve a variety of activities, including keeping operating bases supplied and reducing the number of truck convoys on dangerous roads. Lockheed Martin's Desert Hawk III is used by soldiers to enable them to see what's over the next hill and surveillance platforms including ISIS can track ballistic targets at ranges well beyond 1,080 nautical miles.



AeroVironment's advanced unmanned aircraft systems are used by the US Department of Defense and allied military services to provide real-time, airborne reconnaissance, surveillance and communication. Its 6.5 inch tall nano-hummingbird prototype aircraft is the first to operate using only its flapping wings for propulsion and control. The 2/3 ounce aircraft is capable of flying in all directions and can fit into tight spaces.



In December, Amazon.com Inc. CEO Jeff Bezos surprised Charlie Rose of "60 Minutes" with a demonstration of delivery drones his company has been working on for years. It's called the would-be service "Prime Air," and said the goal of the project is to get goods into consumers' hands in 30 minutes or less. Delivery by drone isn't possible under existing Federal Aviation Administration rules, but the industry is lobbying for more clarity.