

Footage from drone perspective with CyPhy Works

May 5 2015, by Nancy Owano



Sometimes you hear enthusiasts talking about high-quality footage. Now the chatter can shift over to discussions about quality *drone* footage. The good news is that a talented team has come up with a concept for taking pictures with a drone which would not require advanced skills and expensive equipment. It is no accident that a promotional video for a video-capturing drone shows a child, not an adult, holding up the phone.



Fast Company said, "CyPhy Works has so far focused on developing drones for commercial and emergency responder-type uses. Now it wants to sell to everyone." CyPhy Works in Danvers, Massachusetts, founded by iRobot co-founder Helen Greiner, has been making tethered drones for industrial application. These drones were designed to fly 24/7 in all types of wind and weather.

CyPhy LVL I drone is the result of their new project. The drone can fly without tilting mid-air and, as a result, should make the flying experience simple for anyone to learn, said *Engadget*. Level-Up technology is the real breakthrough, said the company's video. "This revolutionary technology changes everything," said CyPhy's team. "Our drone never tilts, allowing it to snap perfect pictures and stable video every time. By eliminating tilting, the drone handles intuitively, with an unrivaled out-of-the-box experience."

its CyPhy LVL 1 is being promoted as a drone that flies simply, shares intuitively, and captures high-quality footage effortlessly. The team hopes users will want to use it for capturing family vacations, the "nonchalant backyard BBQ", the impressive spin off a half-pipe, or an aerial picture to inspect a roof after a storm, view landscapes—you get the picture.

They have taken to crowdfunding on Kickstarter and a main point they make is that the drone simplifies aerial photography. There's no complex, expensive stabilization mount or vulnerable camera. It was designed so that people can take "stunning" pictures with ease.

As for the app, they said, "We understand that flying a drone can seem daunting—so we built an app that isn't. With Swipe-to-Fly, you just swipe your finger on your smartphone and the drone goes. That way, the phone stays squarely in your hands, with the screen perfectly visible. Swipe-to-Fly lets you set up that perfect shot, with an intuitive workflow



you've already mastered through years of smartphone use."

A pledge of \$445 gets a drone, charger and cable, and battery. The mobile app is separately downloaded. Estimated delivery is <u>February</u>.

Launched on Kickstarter with a \$250,000 goal, the drone, *Engadget* said, is "for everyone, from young kids to old people, featuring a smartphone-based, swipe-to-fly remote interface, instant sharing of captured footage to social networks and geo-fencing."

Thanks to the tether, a loss of command and control isn't a concern. Their microfilament enables free movement. The microfilament is spooled down from the sky from the vehicle—not up from the ground. Spooling from the air vehicle also leads to consistently low tension. CyPhy Works' microfilament is superfine, said the company, more like fishing line than typical wire. The battery is a lithium-polymer battery.

Another plus is the "geofencing" that *Engadget* mentioned. *Fast Company* said that "By pacing around the boundaries of, say, a backyard with a smartphone, the user can <u>define</u> a confined area in which the drone can roam—alleviating worries about it potentially spying on the neighbors. With a built-in protected camera, it can survive a crash too."

Military drones have taken more of a center-stage than <u>civilian drones</u>, but companies such as CyPhy Works may be on to a good market opportunity as developments grow for civilian drones. *Fast Company* said that Greiner expected the consumer market for drones will continue to grow "as they become more user-friendly." *Engadget* similarly said, "Over the next few years, the market for consumer-facing <u>drones</u> is going to continue <u>growing</u>."

At what stage is the drone according to Kickstarter? The beta prototype



proved wind performance, stability and smart phone control. The team said its next challenge is to embed a camera. "Our beta uses an off-the-shelf camera, but this is too heavy and too expensive to include with the LVL 1. We are in the process of choosing a camera vendor. Our team has experience embedding cameras into robot systems, so we feel we are in a good place."

They added, "We have team members who have completed the entire product cycle from design to delivery at iRobot, world-class drone experts, and a seasoned director of manufacturing. Working together as a team, we will be able to surmount the hundreds of unforeseeable problems that will arise."

More information: <u>www.cyphyworks.com/</u> <u>www.kickstarter.com/projects/1 ... or-performance-and-c</u>

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