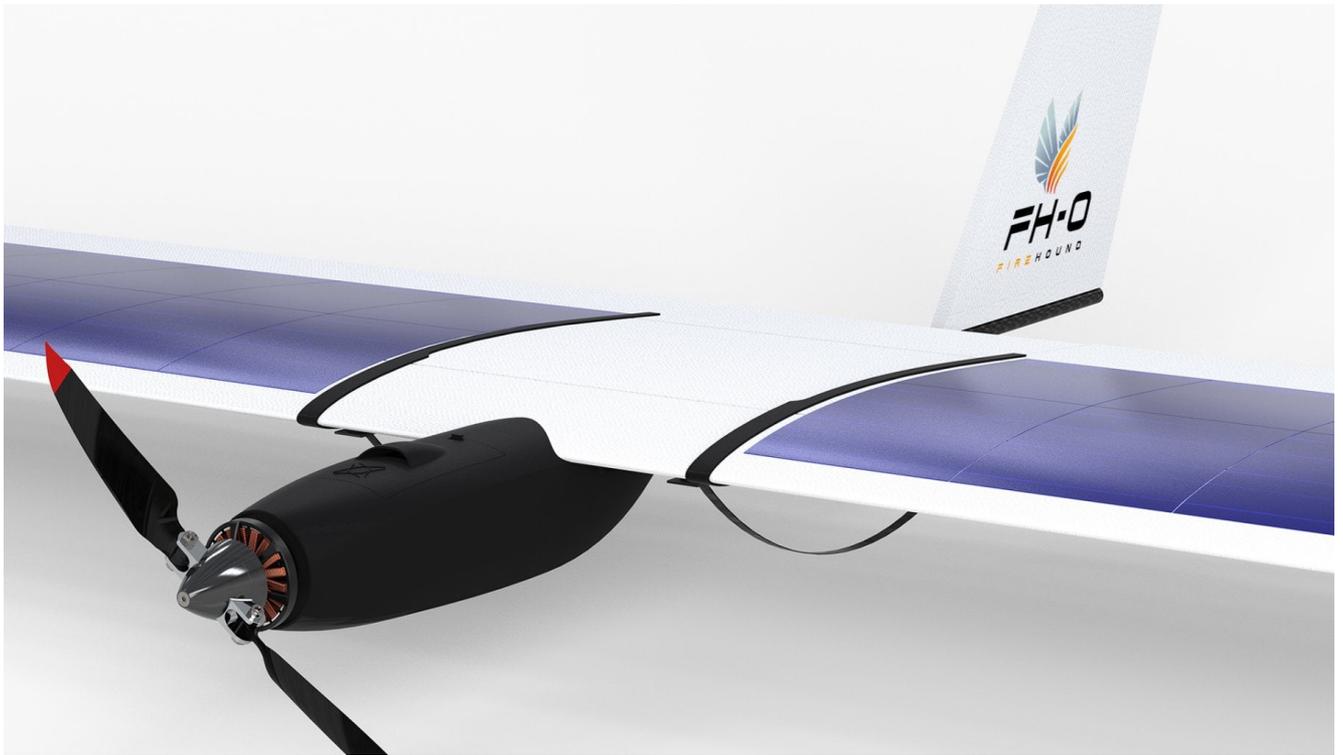


# FireHound Zero, the solar drone that finds outbreaks before they become fires

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A new medium joins the **fight against fires**. It's called FireHound Zero, it resembles a small airplane and is actually a **solar drone**. The first Italian solar drone capable of **fly non-stop for over 8 hours** and, above all, to monitor surfaces of approx **500 hectares per hour** providing the control center with the **precise coordinates of even small pyres**. There is also talk of 30-40 centimeters in diameter, at the level of a campfire, a very useful feature for **intercept even the smallest outbreaks** before they can expand and cause incalculable damage to ecosystems, infrastructure and homes.

In 2021, according to data from the European Effis platform **throughout Italy over 1,500 square kilometers of woods and forests have gone up in smoke**, often in large fires which, if they had been identified and tamed in time, could have been limited to contain the damage. On 2022, on the other hand, it is enough to follow the [news](#), for example with the repeated fires that have killed the Karst in recent weeks.

The interactive

## **The map of fires in real time**

by Paola Cipriani

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FireHound Zero (which literally means "fire hound" and is also called "FH-0") was **developed by two Italian hi-tech companies: the NPC** of Imola (Bologna), specialized in the engineering sector and in the production of microsattellites for scientific and commercial uses, **e la Vector Robotics** of Mogliano Veneto (Treviso), specialized instead in the design and production of innovative solar-powered drones for use also in space exploration missions. It is evident that a fleet of these small drones, especially in the areas at greatest risk, could guarantee the continuous coverage of large areas of the territory, providing a rapid and precise alert in the event of accidental outbreaks or even malicious actions by arsonists, favoring thus the timely intervention of the fire-

fighting forces.

[See also Yang Yuqian: 12.6 coking coal coke temporarily wait-and-see agricultural and sideline products are still empty](#)

"We believe we have found one of the noblest uses for a drone, which will soon be of great help in detecting and preventing fires and avoiding the destruction of hundreds of hectares of woods and forests every year," he explains. **Andrea Beggio**, project manager for system development at Vector Robotics and Italy's leading expert in solar propulsion drones. "We are currently in talks with some national institutions and local administrations that would like to use fleets of FireHound Zero drones to continuously monitor from the sky the areas at risk of fires in their territories and provide rapid and accurate information for the timely intervention of land firefighters and aerial. The 'zero' in the name of our drone is meant to be a wish: to reduce the number of fires that break out to zero without having been identified and circumscribed in time".

FH-0 is **just 87 centimeters long and with a wingspan of two meters, it weighs 1.5 kilograms** and on the wings it mounts an area of about 0.5 square meters of photovoltaic cells that recharge a battery and supply energy to the electric motor. **It flies at an operational altitude of 120 meters and a speed of approximately 40 kilometers per hour.** The fire-fighting equipment

includes, as anticipated, a sophisticated infrared camera, produced by the American company Teledyne FLIR, capable of detecting fires thanks to the temperature of the flames. It can be easily launched by hand by an operator and, at the end of the mission, lands at a predetermined point. The drone has a range of 10 kilometers that can be extended, with 4G / 5G [technology](#) already installed on board, to several hundred kilometers. It can also fly over natural parks and protected areas, thanks to the solar-powered electric motor that makes it absolutely non-polluting and silent.

[See also the moving post after son's pancreatic cancer surgery](#)

The project

## **K250, the small drone that will survey the Land of Fires**

by Dario D'Elia

03 June 2022