

First universal UAV optimized for both payload and distance shows best-in-class results

The EU-manufactured FIXAR drone is the world's first industrial UAV to outperform other models in its class in both payload capacity and distance coverage.

The hybrid patented design combines the best elements of drones on the market – it provides the take-off and landing maneuverability of multirotor drones, and the increased payload and endurance of fixed-wing drones. Moreover, a plug-and-play payload module design allows for various use cases. Those range from mapping and surveying to last-mile delivery and stockpile management, thus replacing the need for multiple devices with one.

“Over the course of a decade of working in the commercial drone industry with mining, surveying, oil & gas, and energy clients, I was constantly facing the same issue – none of the existing solutions could fulfill all the clients' needs.

Professionals all over the world are forced to put up with functional limitations such as limited flight distance, the complexity of cumbersome configuration, small payload capacity, failure to work in low or high temperatures. FIXAR is designed to fill the gap in the industry by offering the all-in-one solution for multiple use cases.” - Vasily Lukashov, FIXAR founder and CEO

The drone was benchmarked against 10 leading competitors in the same weight and wingspan category (7kg). It was found that it outperformed them in multiple categories, making it the most efficient and economically effective industrial UAV on the market. The UAV's aerodynamics and construction lead to:

- longer flight time (up to 60 min)
- heavier payloads leading to increased sensor quality capacity (up to 2 kg /4.4 lb)
- increased stability in adverse weather conditions (-30 °C to +60 °C /-22 °F to 140 °F)
- ability to take off and land vertically
- can maintain positions (hover)

Additional compared statistics include flights per day, average number of trouble-free flights, cost of aircraft ownership per hour, payload capacity, number of flight hours, and more.

In addition to having a swappable payload module to accommodate various use cases, the drone also sets itself apart with its performance in what's typically considered to be unfavourable conditions for drone flight. The FIXAR UAV was [used in the Elbrus mountain range](#) – Europe's highest point at 4500m above sea level – to create an accurate map using orthophotography as part of geodesic surveys for the construction of a cable car in mountainous terrain. At altitudes with increased windiness, as well as challenging terrain, the drone

maintained stability, functionality, was able to land within 2m accuracy, and only required 2 min of flight prep time.

How FIXAR works

While most VTOL fixed-wing drones require that the angle of the motors change when transitioning from vertical to horizontal flight, the FIXAR 007 model uses a patented Fixed Angled Rotor system, meaning fewer moving parts or potential points of failure. Transitions are seamless, and all motors are in use throughout missions. Unlike designs that shut down motors during forward flight, the FIXAR model has no “dead weight”.

The benefits of the FIXAR UAV ensure that drone operators can attach heavier payloads, including LiDAR or a combo of RGB and multispectral cameras. They are more versatile in terms of maneuverability and have longer airtime and distance – covering up to 400 hectares in a single flight or mapping 60 km of roads, railways, and pipelines.

The combined benefits of the hybrid design means that FIXAR is able to replace drones with separate uses, and is able to complete in one flight what might otherwise require multiple flights. Field experience also has demonstrated that only two minutes are required for flight preparation, meaning that fewer operator hours are required per flight. Altogether, this demonstrates that FIXAR is the most financially viable industrial UAV in the drones of its class.

The drone is currently available for pre-order in the EU, Canada, USA, and other countries. Find a dealer on the website at www.fixar.pro.

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About FIXAR

FIXAR is a drone developer and manufacturer based in Riga, Latvia. The company was founded in 2018 by aviation engineer and European champion of drone combat games, Vasily Lukashov.

FIXAR designs and builds innovative, solution-oriented commercial drones plus proprietary embedded Autopilot and xGroundControl Station software. 40 end-customers now use FIXAR drones. A dealership network of 25 companies works with FIXAR solutions all over the world.