ADDMAN | skyfront

Powering Longer, Heavier, and Smarter Drone Missions

Hybrid drones enable longer-range magnetometry missions

Skyfront is a Silicon Valley–based hybrid drone manufacturer delivering long-endurance flight for demanding applications like magnetometry. Traditional electric drones have limited endurance, requiring multiple flights and days to complete mapping and surveying missions. To solve this, Skyfront developed a hybrid electric-gasoline drone capable of carrying up to five times the payload for five times longer flight durations. Their next challenge was integrating the heavy Magniphy sensor onto the aircraft.

Range | Endurance | Cost Reduction | Safety

Solution Found in Additive Manufacturing

- Able to produce a unique enclosure system with unusually long parts
- Quick turn within one week
- Adhere to strict part standards and uniformity of color finishes

Final Product: Perimeter 8 with Magniphy Attachment

- Sophisticated bonding technique
- Improved design to align internal components
- Seamless, smooth finish
- Cost savings with substantial time and resource reduction

Reflecting on the first Forecast 3D-produced panels, Hemant Chaudhary, lead engineer at Skyfront, said,

"Right away, we could tell [ADDMAN] knew exactly what they were doing. The material they used for bonding—and the technique itself—was something special. It wasn't just a simple cut and join; they used a lip-and-groove method, which is a much more sophisticated approach."

HOW THE HYBRID DRONE DOES MORE

The heavy Magniphy sensor is mounted on a metal tube to dampen vibrations and add stability for more accurate readings.

Skyfront hybrid drones have gone on missions detecting landmines in Ukraine, literally saving many lives.

Additive is furthering product development with the releases of Magniphy 2.0 and 3.0.

Find out how ADDMAN can take your product from prototype to production.

Visit addmangroup.com today or contact us directly at (888) 266-1837 or, info@addmangroup.com