

Light Weight Drone

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Abstract: *Lightweight drones, also known as micro or mini unmanned aerial vehicles (UAVs), are compact flying systems designed to perform aerial tasks with high efficiency, portability, and low energy consumption. These drones are typically constructed using lightweight materials such as carbon fiber, plastic composites, and aluminum alloys, which reduce overall weight while maintaining structural strength and durability. Due to their small size and reduced mass, lightweight drones require less power to operate, resulting in longer flight times and improved maneuverability.*

Lightweight drones are widely used in various fields, including aerial photography, surveillance, agriculture, environmental monitoring, disaster management, and delivery services. In agriculture, they help monitor crop health and optimize resource use, while in disaster management, they assist in search and rescue operations by accessing hard-to-reach areas. Their portability allows users to easily transport and deploy them quickly.

In addition, lightweight drones are often equipped with advanced sensors, cameras, GPS modules, and communication systems, enabling real-time data collection and transmission. These features enhance their effectiveness in both civilian and industrial applications. Furthermore, their relatively low cost and ease of operation make them accessible for educational, research, and hobby purposes..

Keywords: Low Weight. Compact Size. Energy Efficient. Easy to Control. Camera and Sensors

