

# Drone Battery Market Set to Soar Past USD 20.81 Billion by 2030, Fueled by Technological Advancements

The Drone Battery Market is growing rapidly, driven by demand for high-performance, eco-friendly batteries with longer flight times and smart features

AUSTIN, TEXAS, UNITED STATES, January 25, 2024 /EINPresswire.com/ --Drone Battery Market Overview:

The <u>DDDDD</u> <u>DDDDDD</u> is witnessing rapid growth driven by the increasing adoption of drones across various industries such as agriculture,

DRONE BATTERY MARKET
SIZE AND SHARE
2023-2030

Market Revenue

\$ 4.69 billion
2022
2030
CAGR 20.45%

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Drone-Battery-Market

construction, logistics, and defense. As drones become an integral part of commercial and industrial operations, there is a growing demand for high-performance batteries that offer longer flight times, quick recharge capabilities, and enhanced energy density. Manufacturers are focusing on developing advanced battery technologies such as lithium-polymer, solid-state, and



The Drone Battery Market is evolving to meet the demand for longer flight times, rapid recharging, and smart features, shaping the future of drone technology."

According to SNS Insider Research

hydrogen fuel cells to address the specific requirements of different drone applications. Additionally, the market is characterized by a shift towards sustainable and ecofriendly battery solutions to reduce the environmental impact of drone operations, leading to investments in research and development of recyclable and energy-efficient battery technologies.

In an era of technological evolution, the Drone Battery Market is poised for unprecedented growth, projected to surpass USD 20.81 billion by 2030. This surge is fueled by

the increasing adoption of drones across diverse industries, where these unmanned aerial vehicles are transforming operations and unlocking new possibilities.

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## Market Sizing Paragraph:

The SNS Insider report reveals a remarkable trajectory for the Drone Battery Market. In 2022, the market was valued at USD 4.69 billion, and it is projected to achieve a staggering USD 20.81 billion by 2030, exhibiting a compound annual growth rate (CAGR) of 20.45% from 2023 to 2030.

## Market Report Scope

Drone batteries, priced at an average of \$60 per set in 2022, generated a revenue of approximately \$4.74 billion. The competitive landscape saw 120 manufacturers vying for market share. Notably, the United States led in sales with 500,000 units, followed by China with 480,000 units and Germany with 200,000 units. Performance metrics showcased the efficiency of Lithium Polymer (LiPo) batteries, with the longest flight time reaching 2 hours and an average weight of 250 grams, striking a balance between power and portability. Notable trends within the market include the dominance of lithium-based technology, the rapid growth of the battery management system segment, the increasing significance of the aftermarket segment, and the leadership of the military platform due to defense sector investments in unmanned aerial systems.

## Major Key Players Included are:

- HES Energy Systems
- Plug Power Inc
- Intelligent Energy
- RRC Power Solutions
- Micromulticopter Aero Technology Co., Ltd
- SolidEnergy Systems
- Sion Power
- Doosan Mobility Innovation
- Eaglepicher Technologies
- Oxis Energy Ltd, others

# Market Analysis

Drones, utilized in various sectors, are propelling the demand for advanced batteries. Breakthroughs in drone technology, coupled with diverse applications, stimulate the need for modern and efficient batteries. Lithium-based technology dominates, driven by advancements in lithium-metal and lithium-sulfur technologies. The battery management system segment is set to grow rapidly due to increased emphasis on monitoring battery parameters. The aftermarket segment is propelled by the demand for drone modifications and upgrades, driven by the need for longer flight times.

One of the key trends in the Drone Battery Market is the integration of smart features and advanced management systems to optimize battery performance and prolong lifespan. Smart batteries equipped with features like battery health monitoring, self-diagnosis, and predictive maintenance algorithms are gaining traction as they enable drone operators to monitor and manage battery health in real-time, ensuring reliable and safe operations. Moreover, advancements in battery management systems (BMS) are allowing for better control over battery charging and discharging cycles, enhancing overall drone performance and efficiency. With the increasing demand for long-endurance drones for surveillance, mapping, and delivery applications, the Drone Battery Market is expected to continue its growth trajectory, driven by ongoing technological advancements and the expansion of drone applications across diverse industries.

## Segment Analysis

The Drone Battery Market is segmented into technology, components, point of sale, and platform categories. Lithium-based technology, battery management systems, aftermarket sales, and the military platform are poised for leadership. Fixed-wing drones, with their stability and endurance, lead the market, and the Asia Pacific emerges as a key player, surpassing North America in market share by 2031.

Market Segmentation & Sub-segmentation included are:

# By Technology:

- Lithium-Based
- Nickel Based
- Fuel Cell

# By Component:

- Cell
- BMS
- Enclosure
- Connector

# By Drone Type:

- Fixed-wing
- Fixed-wing VTOL
- Rotary-wing

# By Platform:

- CONSUMER
- COMMERCIAL
- GOVERNMENT & LAW ENFORCEMENT

MILITARY

# By Function:

- SPECIAL-PURPOSE DRONES
- PASSENGER DRONES
- INSPECTION & MONITORING DRONES
- SURVEYING & MAPPING DRONES
- AGRICULTURAL DRONES
- CARGO AIR VEHICLES
- OTHERS

#### By Point of Sale:

- OEM
- AFTERMARKET

## **Growth Analysis**

- Technological Progress Continuous technological innovation is one of the key catalysts pushing the growth of the Drone Battery Market. Drone battery efficiency, energy density, and overall performance advancements are altering the market landscape. Manufacturers are always pushing the envelope to develop batteries with greater energy storage capacity and faster charging periods in order to satisfy the growing needs of current drone applications.
- Diverse Applications Across sectors: The widespread use of drones in a variety of sectors is a key growth driver. Drones are no longer just for hobbyists or the military; they have uses in agriculture, construction, surveillance, logistics, and other fields. The need for high-performance batteries to power these applications is increasing as companies discover the operational efficiency and cost-effectiveness that drones provide.

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# Key Regional Development

- While historically North America held the lion's share, the Asia Pacific is now poised to dominate the Drone Battery Market, fueled by rapid growth in agriculture, logistics, and ecommerce. China, India, Japan, and South Korea are driving this shift, with over half of the world's battery manufacturers stationed in the Asia Pacific, making it a crucial hub in the supply chain.
- The Drone Battery Market is witnessing a remarkable regional shift, with the Asia Pacific poised to emerge as a dominant force, challenging the historical supremacy of North America. In 2022, North America held a substantial 1% revenue share, a testament to its technological prowess and early adoption of drone technology. However, the dynamics are evolving, and by 2031,

projections suggest that the Asia Pacific will claim over 35.36% of the global market share, overtaking North America.

• Countries such as China, India, Japan, and South Korea are experiencing rapid economic growth. This growth extends to sectors like agriculture, logistics, and e-commerce, creating an increased demand for drones and, consequently, drone batteries.

# **Key Takeaways**

- The Drone Battery Market is on an upward trajectory, set to exceed USD 20.81 billion by 2030, driven by technological advancements and diverse industry applications.
- Lithium-based technology, battery management systems, aftermarket sales, and military platforms emerge as dominant segments in the evolving landscape of drone batteries.
- The Asia Pacific is poised to overtake North America, fueled by regional growth, affordability, and substantial investments in research and development.

## **Recent Developments:**

In February 2021: Shenzhen Grepow Battery Co. Ltd. unveiled an upgraded Tattu Plus1.0 16000mAh 12S smart battery, weighing less than its predecessor.

In January 2021: RRC Power Solutions released a revised RRC1120 battery with enhanced capacity and reduced self-discharge rate, showcasing the industry's commitment to continuous innovation.

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