

Drone Market Analysis

The drones market across all sectors will surpass \$141 billion by 2023.¹ Three major industries account for the breakdown of this market, including military, consumer and commercial sectors broken out in the following way:

1.1. COMMERCIAL

The civilian segments of the drone market is slated to grow at a CAGR of 15.5%.² Additionally the global smart commercial drones market is expected to grow \$17.6 billion in 2025 at a CAGR of 83.3%.³ While the commercial drone sector only represents approximately 6% of the total drone market share which the FAA estimates is between 158,900 - 168,339 units as of 2018. The commercial drone market it still accounts for 60% of all the revenues in the market.⁴ Within this space there are a few key players that on their own capture more than half of the total market share. These major players include⁵:

\$17.6 billion
Projected 2025
Commercial MV

- DJI: 57.18%
- Parrot SA 8.11%
- 3D Robotics: 5.00%

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<https://www.techsciresearch.com/report/global-drones-market/1345.html>

² <http://insideunmannedsystems.com/civilian-drone-market-worth-73-5-billion-2026/>

³ <https://www.reuters.com/brandfeatures/venture-capital/article?id=62679>

⁴ <https://www.recode.net/2017/4/14/14690576/drone-market-share-growth-charts-dji-forecast>

⁵ <https://www.reuters.com/brandfeatures/venture-capital/article?id=62679>

Aside from the original equipment manufacturer (OEM) companies for drones, another segment of the commercial market with a great deal of potential. Large distributors and delivery services have already begun to use drones to make first and last mile deliveries to customers. Companies like DHL and Amazon have already been in the process of developing solutions for both urban and rural delivery. DHL's Paketcopter, a totally manual UAV has already been able to make deliveries in Bonn, Germany⁶, while Amazon was able to make the first autonomous drone package delivery using their Amazon Prime Air Service without an operator in Cambridge, UK back in 2016.⁷ Amazon is still in the process of implementing an initiative to transfer all of its deliveries under five pounds and within a ten mile radius of its warehouse to drone delivery.⁸ This size package makes up approximately 86% of all of Amazon's packages shipped, numbering the millions.⁹



Figure 5: DHL Paketcopter



Figure 6: Amazon Prime Air

1.2. MILITARY

1.2.1. Market Size

The military UAV market as of 2018 was valued at \$12.1 billion and by 2025 is projected to be valued at \$26.8 billion due to a 12% CAGR between 2018 and 2025.¹⁰ In regards to autonomous landing, the Vertical Takeoff and Landing part of the market is the most relevant. Currently the VTOL UAV market is showing signs of continuous growth since its market value is slated to grow

2018 Military
UAV MV
\$12.1 billion

⁶ <https://www.logistics.dhl/content/dam/dhl/global/core/documents/pdf/glo-logistics-insights-uav-trend-report.pdf>

⁷ <https://www.amazon.com/Amazon-Prime-Air/b?ie=UTF8&node=8037720011>

⁸ <https://uavcoach.com/drone-deliveries-2018/>

⁹ <https://seekingalpha.com/instablog/3009741-msu-eli-broad-student-research/4964322-amazon-prime-air-drone-delivery-profits>

¹⁰ <https://www.prnewswire.com/news-releases/military-drones-market-worth-26-8-billion-by-2025-exclusive-report-by-marketsandmarkets-861798694.html>

from \$ 1.43 billion in 2019 to \$2.34 billion in 2024 at a CAGR of 8.6%.¹¹

1.2.2. Fixed-wing VTOL platforms

Fixed-wing VTOL platforms have found a plethora of uses within the scope of the military and law enforcement and is growing. In 2017 the total revenue generated by these UAVs was \$2.01 billion and is expected to grow at a CAGR of 21.7% from 2018-2028.¹²

1.3. VTOL DRONE MARKET

Within the global VTOL UAV industry, the same major players make up the largest share of the market with¹³:

- DJI: 62.03%
- Parrot SA: 14.66%
- 3D Robotics:2.10%

The global unmanned cargo UAV market is also showing some promise with its market value in addition to drone logistics and transportation projected to be valued at \$ 11.20 billion in 2020 and will continue to grow to \$ 29.06 billion by 2027 at a CAGR of 21.01%.¹⁴

¹¹ <https://www.marketwatch.com/press-release/vtol-uav-market-size-showing-86-cagr-to-2024-analysis-of-outstanding-key-players-trends-drivers-2019-02-13>

¹² https://bisresearch.com/industry-report/global-fixed-wing-vtol-aircraft-market-2028.html?gclid=EAIaIQobChMIgI7ro-i4QIVUeJ3Ch3o-wLkEAAAYASAAEgLPvD_BwE

¹³ <https://www.marketwatch.com/press-release/vtol-uav-market-size-showing-86-cagr-to-2024-analysis-of-outstanding-key-players-trends-drivers-2019-02-13>

¹⁴ https://www.marketsandmarkets.com/Market-Reports/drone-logistic-transportation-market-132496700.html?gclid=EAIaIQobChMI7sLcqiOM4QIVzBoYCh2EOgX8EAAAYASAAEgJ04PD_BwE