

Auterion

Drone Delivery in the United States

American consumer attitudes
on home drone delivery of goods and food

July 2022, Auterion



The 2022 Consumer Attitudes on Drone Delivery Report is presented by Auterion, the open source company building the software-defined future for mobile robotics and powering the world's leading drone manufacturers. Auterion powers more than 100 drone manufacturers and its open-source-based applications enable thousands of vehicles—putting its ecosystem in a unique position within the center of shifts in the cargo delivery vertical.

Auterion is building the world's leading autonomous mobility platform for enterprise and government users to better capture data, carry out high-risk work remotely, and deliver goods with drones. Auterion's open-source-based platform was nominated by the U.S. government as the standard for its future drone program. With 70+ employees across offices in California, Switzerland, and Germany, Auterion's global customer base includes GE Aviation, Quantum-Systems, Freefly Systems, Avy, Watts Innovations, and the U.S. government.

Learn more about Auterion at auterion.com

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Package delivery remains massively popular among Americans, and 64% of those surveyed see drones becoming an option for home delivery

The survey, polling more than 1,000 consumers across the U.S., found that a solid majority of Americans (58%) favor the idea of drone deliveries and even more (64%) think drones are becoming an option for home delivery now or will be in the near future. With more than 80% reporting packages delivered to their homes on a regular basis, the survey finds that Americans are generally ready to integrate drone delivery into daily life.

In thinking about the near future, a sizable 54% of Americans were willing to consider drones as “the new corner store” for conveniently delivering small and last-minute sundries. Likewise, half (50%) think it’s important that packages, goods or food, are available for same-day delivery.

Home delivery of meals remains popular, with more than half of Americans (51%) ordering food from services like Uber Eats and DoorDash.

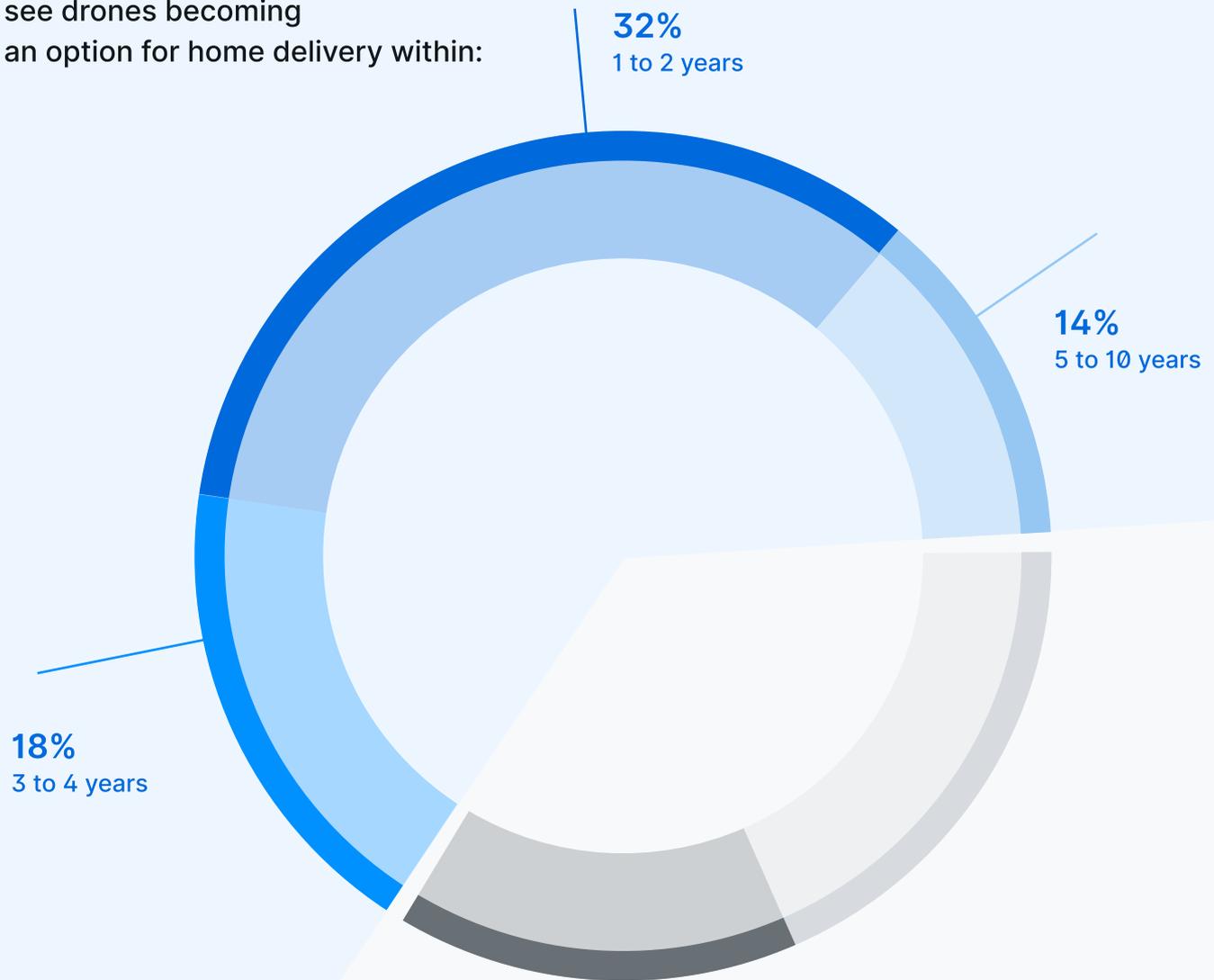
A notable 40% have food or meals delivered to their homes on a weekly basis, 32% monthly, 14% bi-monthly, and 12% daily. The figures show that a robust market exists for scaled retail drone delivery.

With respect to consumer costs, free delivery service made drone delivery more appealing to a majority of those surveyed (59%). If there were an additional shipping cost for drone delivery, the highest add-on fee some Americans would be willing to pay ranged from \$1 to \$10 (41%) to more than \$10 (18%). The other 41% would not be willing to pay an extra fee. Notably, if products arrived to the house within an hour, 4 out of 10 Americans (42%) said that they would pay more money.

And some consumers were willing to go the extra mile: 44% of those interested in drone delivery said they are open to purchasing a permanent fixture drone landing pad to ensure delivery to a specific location on their lawn or property.

64%

see drones becoming an option for home delivery within:



36%

have their doubts

With 20% who think the general public or governments will not approve of large-scale drone adoption for delivery and 16% who just prefer that it doesn't happen.

Package delivery

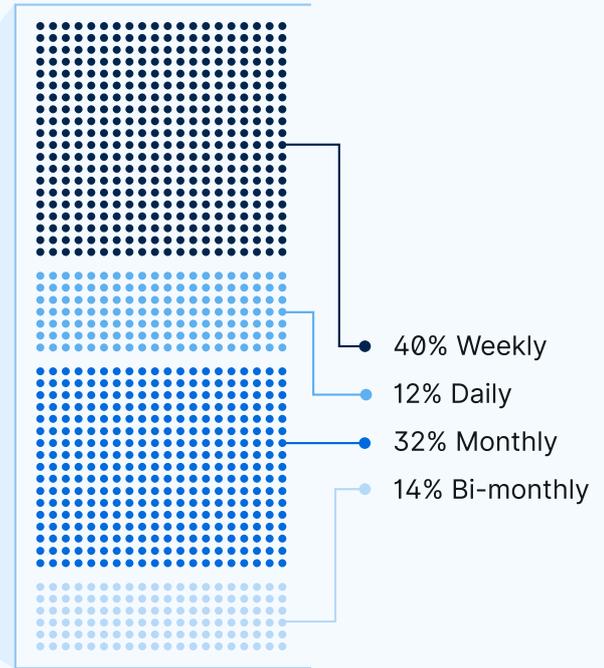
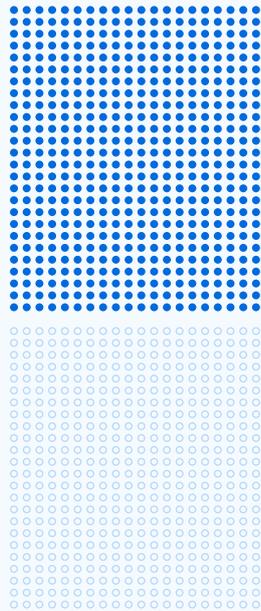


51%

favor same-day delivery

Half of Americans think it's important that packages can be available for same-day delivery.

More than half of Americans (51%) order food or meals for home delivery from a service like Uber Eats and DoorDash.



Uber Eats  DOORDASH

The most common types of deliveries they receive are groceries (39%), clothing (34%), household items (33%), meals (31%), medicine (27%) and baby food/needs (11%), while only 18% don't receive any deliveries.



39% Groceries



34% Clothing



33% Household items



31% Meals



27% Medicine



11% Baby food / needs

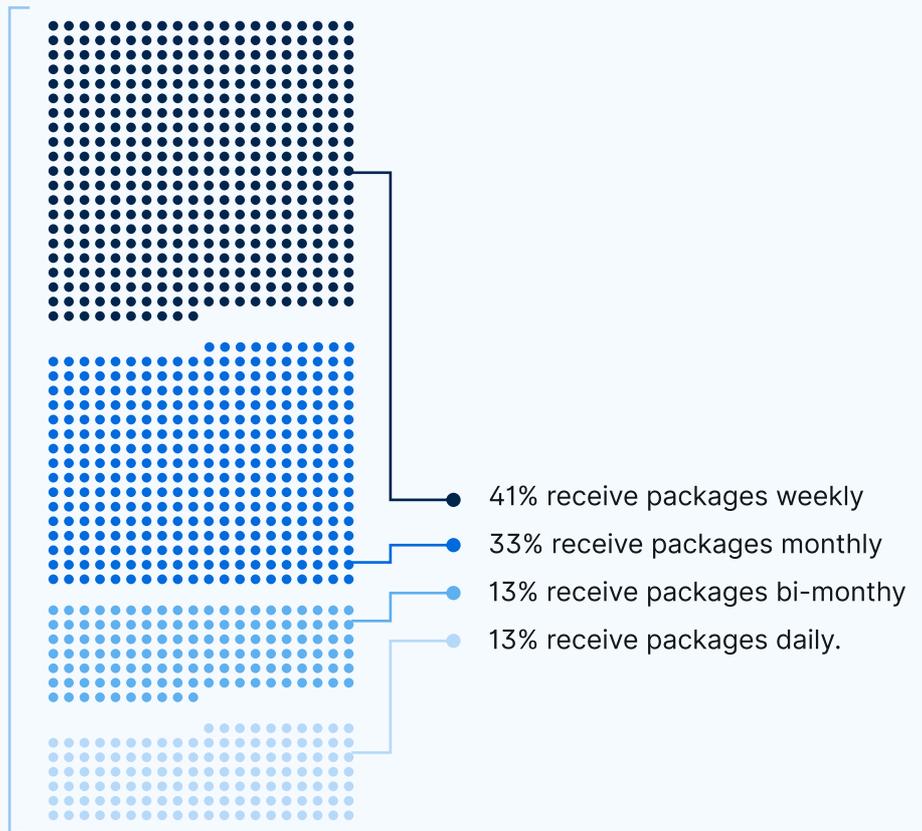
Results at a glance



As the U.S. emerges from the pandemic, the desire for home package delivery remains high, with a powerful majority confirming regular delivery:

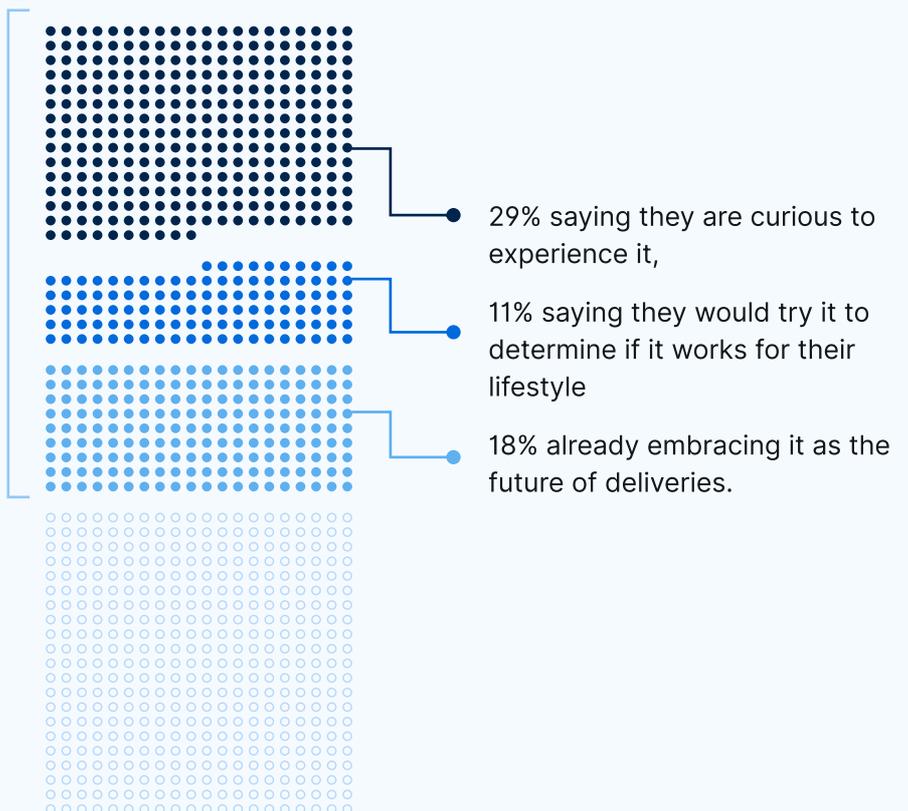
80%

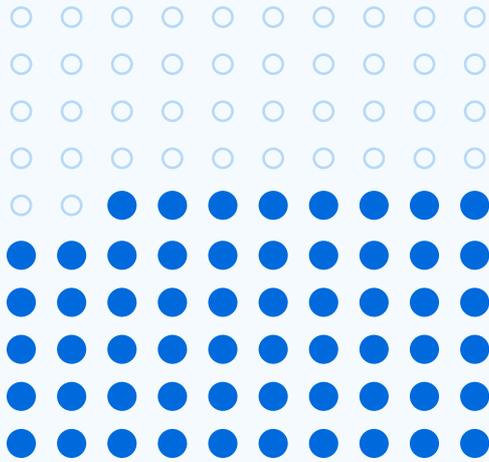
have packages delivered to their homes



But a clear majority, actively favor drone deliveries, with:

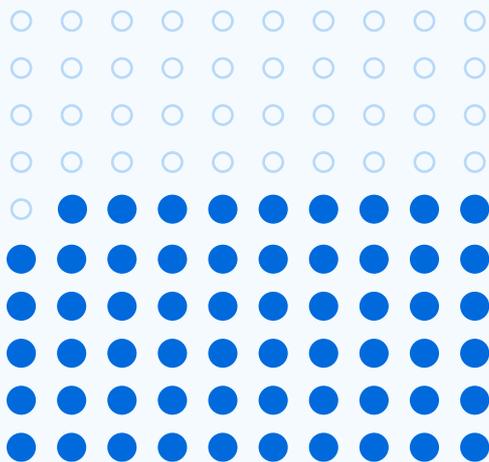
58%





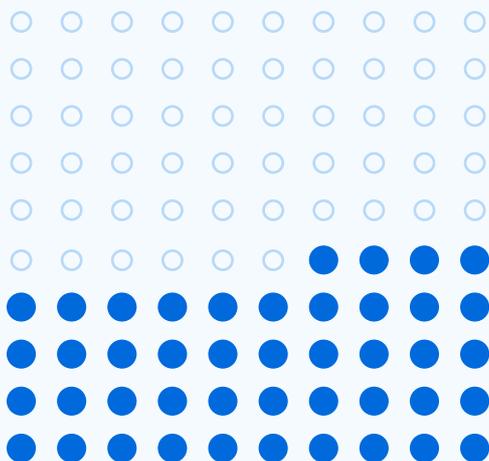
58% 

of Americans are in favor of the idea of drone deliveries and of those, 29% want to at least experience a drone delivery once while 11% would try it several times to determine if it works for their lifestyle. The other 18% see drone deliveries as a way of the future.



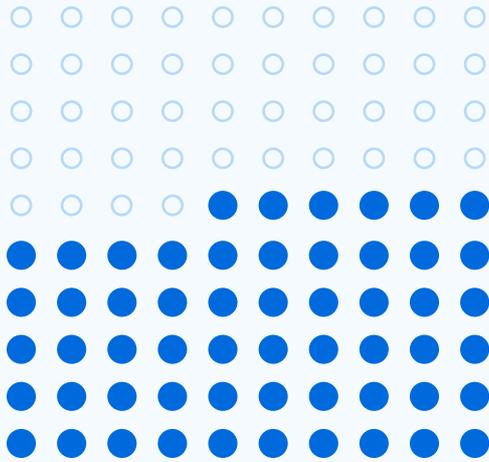
59% 

While 59% are interested in free drone delivery services, if there was an additional shipping cost for drone delivery, the highest add on fee Americans would be willing to pay would range from \$1 to \$10 (41%), while another 41% would pay extra and the remaining 18% would pay \$10 or more for the feature.



44% 

44% of those interested in drone delivery, would be open to purchasing a permanent fixture drone landing pad to ensure delivery to a specific location on their lawn/property and nearly half (47%) would make a purchase from a specific retailer, due to the option of a drone delivery program.



56%

More than half of Americans (56%) agree that drone delivery can help the environment, another 44% like that they can receive things faster and 35% think it could be cost-effective for them, while 36% would at least be in favor of experiencing one drone delivery and the other 37% just think drone delivery sounds cool.

44%

would use a service which offers drone delivery over one that does not, however, if the cost was the same, 52% would choose delivery from a car/truck over a drone, even though they know it might take longer to receive their item.

When it comes to the biggest concerns about drone deliveries, 43% of Americans fear the drone will break down and they won't get their items and 19% are distressed about not having human interaction with their delivery person, while other concerns include:

Nearly all of these concerns are the same ones people experience with any method of delivery and are not delivery vehicle dependent.

Drone robotics offers highly trackable direct delivery, as it leverages air instead of ground, and is more capable of accurate delivery timing, which can reduce the amount of time packages are outside.

And despite concerns, more than half of Americans (56%) still feel "comfortable" knowing that drones will be delivering items to their homes or businesses in the near future.



39% That the drone will deliver my items to the wrong address



38% If something happens to the drone, I won't get a refund



37% That my items will get ruined by the travel



35% The drone will leave my items unattended making it easier for porch bandits



32% That the sky will be cluttered with ugly/noisy technology

A staggering 59 million parcels were shipped every day in the U.S. in 2021.

According to the latest Pitney Bowes Parcel Shipping Index¹, U.S. parcel volume grew six percent in 2021 reaching a record high of 21.5 billion, up from 20.3 billion in 2020. A staggering 59 million parcels were shipped every day in the U.S. in 2021. With 64% of Americans surveyed in this report viewing drones as becoming an option for their home delivery, we consider the potential market opportunity for drone delivery in the U.S. to be significant.

This is in conjunction with an increasing commercial drone market which was valued at \$2.72 billion in 2020, and is projected to reach \$21.69 billion in 2030, registering a CAGR of 23.7%². The factors such as technological advancements in the industry and increased application areas such as precision agriculture, aerial imaging, cargo management, traffic monitoring, and others are contributing to the growth of the drone market.

While the market opportunity for drone cargo delivery is large, and the American public's acceptance of drone delivery signaling a move towards widespread adoption, there remains a number of challenges to be addressed before drone delivery can reach its full potential. These select challenges which this report does not address in detail are regulations and integration into national air space, standardization & scalability of technology, retailer adoption and continued public awareness and education.

We are optimistic that there will be tremendous opportunities within the drone cargo delivery vertical in the coming years, but understand that there remain barriers to mass adoption that need to be solved in order for the industry to reach its full potential.

¹ <https://www.pitneybowes.com/us/shipping-index.html#>

² Commercial Drones Market by Type (Fixed Wing, Rotary, and Hybrid), Mode of Operation (Remotely Operated, Semi-Autonomous, and Autonomous), and Application (Agriculture and Environment, Media and Entertainment, Energy, Government, Construction, and Others): Global Opportunity Analysis and Industry Forecast, 2021-2030

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