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Apple Car: News, Price, ==Release Date==, Features, and More Rumors

Everything we know about the Apple-branded self-driving car

By Tim Fisher   Updated on June 20, 2022

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A consumer electronics company expanding into the ==automotive industry== isn't unheard of—think OPPO or Waymo—but it's a huge move. Although we don't expect it for several years, people are already speculating how the Apple car might work. Think ==advanced safety features== and an ==iPad-style navigation center==, to name a few.

When Will the Apple Car Be Released?

The idea of an Apple car has been circulating since 2014 when CEO Tim Cook reportedly approved a car project named Titan. Apple was rumored to have hired a transmission engineer and the former president and CEO of Mercedes-Benz research and development.

During a November 2021 interview, Cook said that the company is focusing on autonomy and AI. Even Apple's co-founder Steve Jobs was said to have wanted to design the iCar.

It's become apparent over the years, albeit through slow-moving details, the company's interest in making a car is more tangible than ever:

In 2015, the New York Times reported Apple had contracted Torc Robotics to retrofit two Lexus SUVs with sensors in a project known internally as Baja.

In 2016, according to Reuters, "*Apple is now asking charging station companies about their underlying technology, one person with knowledge of the matter said. The talks, which have not been reported, do not concern charging for electric cars of Apple employees, a service the company already provides. They indicate that Apple is focused on a car, the person added.*"

In 2016, Apple filed a patent for a system explaining to a passenger what the autonomous vehicle is about to do: "*…information may be displayed such that an external observer to the vehicle may determine the near-future operation autonomous vehicle is about to perform. Other information concerning the operation of the vehicle may also be displayed.*"

In 2017, Apple was granted permission from the state of California to test self-driving cars, and it was quoted by Bloomberg that the company was "*focusing on autonomous systems.*"

In 2018, 27 self-driving vehicles were registered with California's DMV.

In 2019, Apple acquired Drive.ai, a technology company that uses AI to make self-driving systems for cars.

In 2020, the car was reportedly set to make its debut in 2021, with that source citing suppliers in Taiwan that were planning to scale up production in Q2 2021.

In 2021, Apple was reportedly in talks with Toyota and Korean partners for the production of the Apple car to begin in 2024.

In 2021, Bloomberg's Mark Gurman reported Apple is looking to announce the self-driving car in 2025, with possible availability following a couple of years later. Apple "*currently has a fleet of 69 Lexus SUVs experimenting with its technology*". The tech is a new processor design and self-driving sensors.

In 2021, Economic Daily News described an apparent change in events: Apple's car might be released years earlier than expected, in September 2022.

In 2022, analyst Ming-Chi Kuo reported the Apple Car project team had been dissolved for some time, and that rapid reorganization would be necessary to begin mass production by 2025.

In 2022, Apple added 10 drivers to its autonomous vehicle program.

> **Release Date Estimate**
>
> Despite Apple's years of interest in a self-driving car, it's safe to say we don't expect one for several more years. We'll draw from Gurman's latest estimate and guess you'll be able to buy the first Apple car sometime around 2027, give or take a year.

Apple Car Price Rumors

Low prices and *Apple* aren't synonymous. Apple products aren't low quality, so elevated prices are expected, no matter the Apple-branded item. It's safe to assume their self-driving electric vehicle will follow suit and cost a pretty penny.

The only way to price the vehicle this far ahead of its release is to look at what other companies are doing. The price for luxury vehicles from competition like Tesla and Lucid Motors ranges widely, depending on the features you want the car to have. Between just those two, you're looking at anywhere from around $40,000 to $170,000.

If there are several models to pick from, there might be a lower-end version without auto-driving or that doesn't include the same perks as the more expensive models. If so, there might be a more basic, but still fancy, Apple-branded electric car for around $35,000, which is much more in the ballpark of what's considered affordable.

It might be tempting to think, since the iPhone is so prevalent, Apple is in the game of pricing its products in a way that makes them financially reasonable for most people. But the iPhone (and Apple Watch, MacBook, etc.) is far from being the least expensive smartphone on the market, so it's not pricing that is driving most people to choose Apple products.

Instead, quality and brand loyalty are big motivators to stick with any company. If you consider Apple's other products here, it makes sense it will build its car with first-rate materials that are smart, safe, and user-friendly, likely exceeding that of every other vehicle available at the time.

If the renders created by Vanarama have any truth to them, it's clear this will be an expensive vehicle.

In short, a low-cost Apple car might not be on the horizon. Without even considering the $100,000 price tag some people are guessing, it's possible that owning the vehicle outright might not even be an option, as some think the vehicle will be available through a subscription service. We'll know for sure how it all works when/if Apple makes an official announcement.

Pre-Order Information

Pre-orders for the Apple Car could begin an entire year or more before its actual release. Other next-gen vehicle manufacturers, like Tesla, Canoo, and Aptera, have also used this tactic.

Related: 9 Questions to Ask Yourself Before You Buy an EV

How the Apple Car Might Work

Exploring the Apple car features isn't something anyone can do this early. But since smart cars are already on the roads today, we're not totally in the dark when anticipating what's most probable about Apple's car.

Self-Driving

The current rumor is the angle Apple will take with its car is to make it fully autonomous. If you're familiar with the Society of Automotive Engineers, SAE calls this Level 5. At most, this means no pedals and no steering wheel. *Full* automation.

Of course, depending on regulations at the time of release, it might be necessary —desired, even—to have manual override options in place should the self-driving mechanics fail.

We're skeptical that Apple will jump into the automotive industry with a self-driving car leading the way. It makes more sense to follow what other companies have done by starting with a smarter-than-average car with lane assistance, semi-auto-pilot, etc., instead of immediately jumping into a no-steering-wheel version.

But, it's important to frame this accurately. It's unlikely the Apple car will hit the streets any sooner than several years from now. That's a lot of time to add to explore the idea. New technologies will undoubtedly emerge by then, some from Apple itself.

What will power the intelligence behind the car's autonomy? The processor that's in development, according to MacRumors, might be based on the processor used in Apple's other products. According to The Elec, Apple is developing the car's chip modules and packages with a Korean OSAT company.

PatentlyApple.com uncovered a patent in late 2021 that reveals warning systems that could be built-in to the car, like alerts and exterior text regarding speed, the status of oncoming vehicles, or when it's in self-driving mode. Other information it might show include upcoming weather, collision risks, nearby traffic jams, etc.

A patent granted in January 2022 is for "guidance of autonomous vehicles in destination vicinities using intent signals." In short, it reiterates one of the core ideas behind this car, which is that it'll use sensors to understand the surrounding environment to allow navigation with little to no input.

Something else related to self-driving is the brains that run the whole operation. Apparently, Apple is working with a Korean supplier on a centralized OS that controls everything in the car. According to that source, the company will adopt "Tesla-type autonomous vehicle architecture. It is a Domain Control Unit (DCU) method that manages several electronic control units (ECU) in an AP that serves as a brain."

A patent revealed in May 2022, titled Guidance Of Autonomous Vehicles In

Destination Vicinities Using Intent Signals, details how a user could control the car's route even in a self-driving situation. Apple introduces one example where a passenger states the following when in the vicinity of a retail store: "I'd like to buy some plants for my garden." The car might then "determine that the vehicle should preferably be parked near an entrance marked 'gardening' or 'gardening supplies'." The patent also suggests another method for how this could work, where a drop-down menu on a screen provides various options, so you're telling the car what to do via a text interface instead of voice commands.

Interior

If the Apple car has no steering wheel, it must mean you don't need to watch the road (though this level of autonomy could still be years out), so how would you spend your time in such a vehicle?

According to Mark Gurman at Bloomberg, Apple has played with the idea of the car having seating where the passengers face each other, similar to the setup in electric vehicle startup Canoo's Lifestyle Vehicle.

In that car's iteration of this setup, it's just the backseat passengers riding in this kind of luxury. It's known that EVs are roomier than other vehicles, and an even more comfortable picture is painted when you consider the "driver" here doesn't need to be driving or monitoring the road full time, so the front seats could just as easily spin so you can stretch your legs and face everyone at once, no rearview mirror required. Apple was granted a patent in January 2022 for a vehicle seat with a reclining mechanism.

Expect to see a large display between the two <mark>front seats</mark> of a new car to help with navigation, music playback, vehicle controls, etc. As you might have guessed, one rumor is the display in this car will resemble an iPad.

It might *be* an iPad in every way but name. It'll most likely run a modified version of iPadOS with Apple Maps, Apple Music, Siri, etc., and will work familiarly but have vehicle-specific toggles.

In the (not so distant?) future, <mark>Apple's car</mark> might even include a detachable infotainment device so the driver can still <mark>access climate control</mark>, music, etc. when they swivel the chair around.

Range

The prediction is that <mark>Apple's car</mark> will be self-driving and electric, only there isn't a lot to be said yet about range. Between batteries and [regenerative braking](https://www.lifewire.com/apple-car-5210313)

technology, most new EVs are capable of at least 250 miles, but some exceed 400 miles, and even fewer, like Aptera, claim up to a 1,000-mile range.

The Lucid Air is one example of a luxury EV that could be comparable to the Apple car, and its claim is up to 520 miles per charge. As of early 2022, they market it as the longest-range electric car in the world.

While we don't know the specifics on the battery capacity of the Apple car, considering the several years they'll have to develop something better than what's in existing cars, we're probably looking at a low-end model which can easily exceed 500 miles.

Apple might even be developing a brand-new battery design to ensure ample range, according to MacRumors:

> Apple is creating a "monocell" design that will bulk up the individual battery cells and free up space inside the battery pack by removing pouches and modules that hold battery materials. This will allow for more active material in a smaller package. The battery technology has been described as "next level" and similar to "the first time you saw the iPhone."

> **Tip:** Vanarama's concept is only one take on how the car might look. Of course, nobody knows for sure, but Erick Martinez's designs show a much smoother exterior. For an interesting but unrealistic take, check out Devanga Borah's pod-style microcar designs.

Safety

Automated driving carries several prerequisites which make the car safer than one not as smart. Features like lane centering, automatic braking, and blind-spot alerts are a given, so what unique features might Apple do to make its car safer than

other vehicles on the road?

We don't know just yet, but AppleInsider reports Apple is working on some unique safety measures, with the goal being to "spare customers from driving fatigue when they're on long road trips." However this takes shape, it's plausible that the iPad-like display will play a part.

However, if that's true, then the idea of a Level 5 self-driving car goes out the window since fatigue (at least in the sense of driving attention) isn't a concern for a truly autonomous vehicle. For Apple to ever claim ultimate safety, they might need to keep the steering wheel as a backup measure.

The company's other products feature safety characteristics like fall detection and automated emergency calling, so it's a given that similar sensors and other predictive behaviors will show up in its car.

With passengers potentially facing each other while in motion, collision risks sound even more dangerous than they do in a traditional vehicle where everyone faces the same direction. Apple seems to have a solution to that problem—a patent uncovered by Patently Apple in 2020 describes ample airbags and rail-mounted seats that can move in response to a collision to create distance between the occupants.

Charging

A charging station patent spotted by Patently Apple confirms that Apple might be interested in adding some sort of automated charging mechanism to the vehicle so it can attach to a charging station without any manual input by the passengers. For illustrations and other details, check out patent 11,325,491 at USPTO.

There's also this Modular Charging Systems for Vehicles patent, filed in June 2022, that could increase at-home charging speeds.

Wireless charging for your iPhone and iPad is sure to be included in this car. But what about charging the whole car wirelessly? Some of Apple's devices can charge each other, so will that functionality come to the Apple car, too?

As far-out as it sounds, we've heard that the company has a patent (we couldn't verify this) that would allow vehicle-to-vehicle charging—i.e., an Apple car charging another Apple car. We're doubtful this would be one of the car's first functions, but maybe in the distant future. It's conjecture at this stage, but it isn't inconceivable.

Other Features

Considering the proprietary nature of Apple's messaging services, FaceTime and iMessage, it's possible its car will work similarly. The built-in iPad might be used to communicate with other Apple car drivers on the road.

The usual understanding of vehicle-to-vehicle communication involves vehicles knowing where the other ones are for safety reasons: A "Stop accelerating, another car is approaching!" type of feature. But this could also be an iCar messaging service meant for texting other Apple cars.

Likewise, the Apple Watch and iPhone will undoubtedly function as keyless tools to unlock the car. And if Mark Gurman is right, you'll be able to use your iPhone to control and monitor your car; think speedometer readings, temperature adjustments, radio and seat controls, and triggering the alarm—this is basically

confirmed in this 2022 Apple patent that details an electronic key. Facial recognition could find its way to Apple's vehicle, too, to unlock it or automatically customize the interior to the user who sits down.

Hyper-targeted climate control is another rumor we've heard. Modern vehicles already support this to heat the driver and cool the passenger, for example. Apple might extend this functionality with built-in sensors that target specific parts of the body depending on the user's current temperature reading (e.g., cool your arm and face if they're in direct sunlight, but heat the rest of your body).

A vehicle-related patent filed by Apple in 2017 details a VR system that can help address motion sickness for passengers. Here's the abstract: "The VR system may provide virtual views that match visual cues with the physical motions that a passenger experiences. The VR system may provide immersive VR experiences by replacing the view of the real world with virtual environments. Active vehicle systems and/or vehicle control systems may be integrated with the VR system to provide physical effects with the virtual experiences. The virtual environments may be altered to accommodate a passenger upon determining that the passenger is prone to or is exhibiting signs of motion sickness."

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> Apple Car Project Stands to Benefit From Downfall of EV Startup Canoo

> Longtime Ford Engineer Joins Apple Car Team

> Apple Car to Feature Integrated OS Like Tesla

> Apple Car's Self-Driving Tech Ran Nearly 13,000 Miles in California in 2021

> Newly Uncovered Apple Patent Involves 'Multi-Linkage Vehicle Door Hinge'

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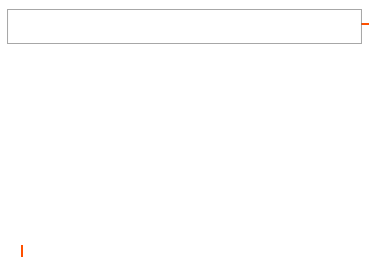
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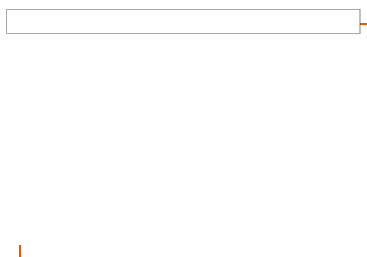
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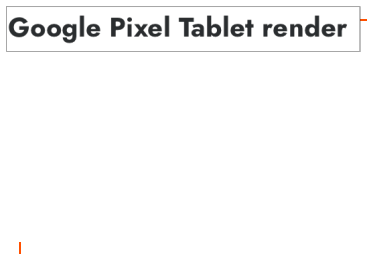Apple Watch Series 8: News, Plus Expected Price, Release Date, Specs, and Rumors

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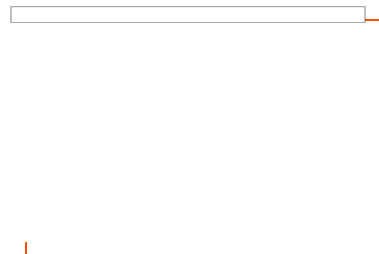Sony PlayStation VR2
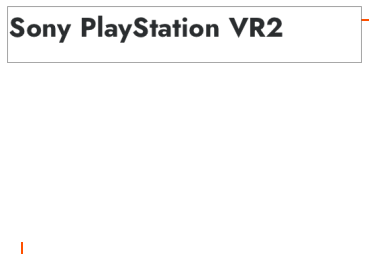
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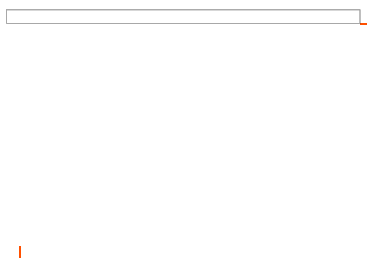
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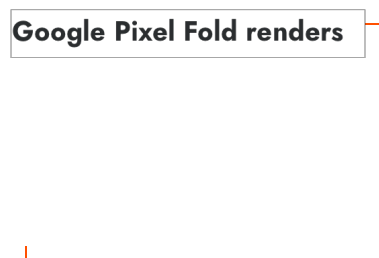**CONSOLES**

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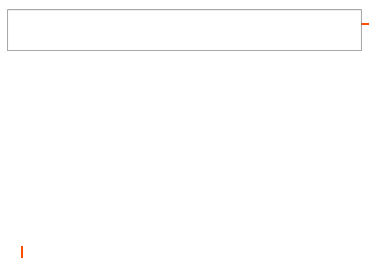
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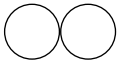
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