EV startups in 2022: Will they get you to join the electric revolution?

Longtime automakers may command the conversation around electric vehicles, but there are plenty of up-and-comers worth keeping your eyes on.

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Some EV startups, like Canoo, are prioritizing design to help stand apart from the crowd.

Canoo

This story is part of **The Year Ahead**, CNET's look at how the world will continue to evolve starting in 2022 and beyond.

Electric vehicles are still niche vehicles in the grand scheme of the automotive industry, which pumps out millions upon millions of cars every year. But they're gaining steam in a hurry, with companies new and old trying to stake their claim in the era of electrification. You're probably familiar with the likes of Volkswagen and Tesla, so let's take a look at the up-and-comers that might find their way onto your driveway in 2022 and beyond.

It's easy to overlook EV startups in favor of legacy automakers, given the latter's footprint in sales and marketing, but companies on the up-and-up are still worthy of your attention. Some people may just want to live on the cutting edge: Many of the startups listed below are taking some innovative steps in design and engineering. Building cars is an extremely costly process, which means these cars aren't likely to be any less expensive than what legacy manufacturers offer, but there is something to be said about preferring a smaller, more agile company with less overhead than a million-cars-per-year conglomerate.

The EV market is growing, but it's certainly not a giant quite yet. According to Green Car Reports, EV registrations in the second quarter of 2021 only accounted for 2.4% of all new-car registrations. That might sound like it's on the small side, and it is, but that figure represents nearly 120% growth over the same quarter in 2020, so the momentum is gaining.

For the purposes of this rundown, I'll define an EV startup as a company that isn't a legacy automaker or a full subsidiary thereof, like Volvo's

Polestar spinoff. Let's take a look at the history of each, along with what their near-future plans are and how things have progressed in their respective journeys.

2022 Rivian R1T Launch Edition rides clean, gets dirty

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Aptera

We'll start with a real left-field startup. Aptera has actually been around for more than a decade with the same goal: Build a three-wheeled electric car that looks like a Cessna with bigger wheels and no wings. The company ran into some issues back in 2011, when it had to shutter its operations and return customer deposits. But Aptera's founders put the company back together in 2019, and as of this writing, it's charging full speed ahead in its determination to build an EV that runs on solar energy.

Aptera promises a range of up to 1,000 miles on a single charge, although it wants to offer batteries in different sizes to suit different owners. That's quite the lofty goal, considering even the most modern

EVs on sale as of this writing still can't eclipse 550 miles of range. Part of this range estimate comes from pure engineering; Aptera is building its car to be as light as possible while being extremely aerodynamic. The 180-or-so solar panels built into the vehicle can generate a claimed 45 miles per day, which leads Aptera to declare on its website that the car "requires no charging for most daily use."

Right now, if you head to Aptera's website, there's a link to become an investor, along with a page to put down a reservation. Investors don't have to pay for a reservation, but the rest of us will have to plunk down $100 now for a car that the company believes will cost between $26,000 and $51,000 when all is said and done.

Aptera Paradigm wants to rethink EVs

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Bollinger

Bollinger Motors first arrived on the scene in 2017 after its founding three years earlier, unveiling one seriously sharp car, both literally and figuratively. It garnered attention for its vehicle design, which is on the stark side of the spectrum, replete with hard angles and an emphasis on minimalism that other startups eschewed in favor of pure flash. Some of that attention dissipated in the ensuing years, though, as Bollinger revealed a lofty six-figure price tag for its forthcoming EVs.

Bollinger has two models that it wants to prepare for production, the B1 SUV and B2 pickup truck. Production was originally slated to begin in 2021, but as of this writing, Bollinger's online FAQ estimates that production will be underway in late 2022. Specs are not yet finalized, but the company estimates its vehicles will have a range in excess of 200 miles with the ability to accept 100-kilowatt charging for its 120-kilowatt-hour battery pack. It's an off-road-friendly EV too, with lockable differentials, sway bars with manual disconnects and 15 inches of ground clearance.

Bollinger isn't leaving all its eggs in the B1/B2 basket. The startup also wants to dip its toes into the world of commercial vehicles, and to that end, it intends to build commercial chassis-cab trucks as well. These Class 3, 4 and 5 vehicles will sport batteries with capacities between 140 and 280 kWh, permitting a range of more than 200 miles, which is impressive for a heavy-duty truck.

Production-intent Bollinger B1 and B2 look a little less edgy

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Byton

Some startups get so close to production that we're able to slide behind the wheel for a preview spin, and Byton is one of those companies. Of course, the startup universe is a fickle one, so it's no surprise that some wrenches have been thrown into the mix between now and our drive, and its future is looking a little rocky.

Byton is a Chinese-German startup formerly named Future Mobility. Its first planned production model, the M-Byte, was so close to hitting the market that the company unveiled the car at the 2019 Frankfurt Motor Show. And it was a stunner, too, with a gargantuan 48-inch widescreen dashboard display. Byton went so far as to accumulate and announce a number of media company partnerships for its in-car tech.

It all seemed destined to make it within reach of the public, but since our first drive, Byton has had its share of issues. In early November, a Nikkei report claimed that the company entered bankruptcy proceedings, with a source saying it will be difficult for Byton to bounce back. Never say never, though, because as the market continues to heat up, a new bankroller may show up to bring Byton back from the brink.

Byton unveils final design for M-Byte electric SUV

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Canoo

When a startup reportedly gets Apple's attention, you know there might be some magic happening. That's the case with Canoo, an American startup that came to be after a couple of executives parted ways with EV startup Faraday Future. It originally carried the clunky name of Evelozcity, so, um, let's be glad it's called Canoo.

Anyway, Canoo started its efforts with a modular EV platform that could underpin a number of different vehicle designs. The first body to get an official preview was a funky minivan, with plans for multiple delivery vehicles to follow, since the commercial space is keen to electrify to help reduce running costs. In early 2021, Canoo opened preorders for its funky delivery van, which looks like something we'd see in Cyberpunk 2077 or Minority Report. Production is slated to start in 2023, and refundable deposits are just $100.

Although the company has delayed its production from 2021 to 2023 as of this writing, Canoo is still pushing forward with new unveils. In March, it pulled back the cloth on a sweet pickup concept with a foldout bed extension, storage cubbies galore and a powertrain promising some 600 horsepower and 550 pound-feet of torque.

Canoo's Multi-Purpose Delivery Vehicle is the chameleon of work vans

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Faraday Future

Some EV startups land with a major splash, only to go quiet for an extended period of time. Faraday Future is one of those companies. It first wowed the crowd at CES 2017 with the FF 91 electric vehicle, which promised everything from Tesla-stomping acceleration to conditional autonomy by way of a litany of sensors attached to the body.

Not only did Faraday Future take us for a spin in its 1,000-horsepower prototype, the company came to CES 2020 and let me drive it. Impressed with its aesthetics inside and out, I also found the FF 91 delivered quite the comfortable ride. But after that debut, the company has been quiet, with most news coverage relegated to reporting on the startup's alleged financial woes. Faraday Future went public on the Nasdaq stock exchange in mid-2021.

In October, Roadshow Editor-in-Chief Tim Stevens had a chance to interview FF CEO Carsten Breitfeld. Faraday Future is still working to bring its vehicles to market by July 2022, a deadline that has been kicked down the road more than a few times over the years. Breitfeld says that a number of improvements have been made to the vehicle during this time, since the entire segment has moved forward considerably over the past three or four years. Following the FF 91's debut, the startup wants to produce the FF 81, a smaller and more affordable car that will be Faraday's volume seller.

Faraday Future FF 91 creeps closer to production

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Fisker

Famed car designer Henrik Fisker loves to stay busy. His first attempt at an electrified vehicle, the plug-in-hybrid Karma, went belly up after its battery supplier declared bankruptcy, and its assets were sold off to a company that rebranded to Karma Automotive. But Fisker himself wasn't about to stop, and now he's back with a new creation that's entirely electric.

The 2023 Fisker Ocean made its debut at the 2021 LA Auto Show. It's a half-foot longer than a Honda CR-V, running on a modified Magna Steyr platform to help reduce development costs, and as you might expect, the powertrain is fully electric. Its 275-hp, front-wheel-drive base model is expected to deliver 250 miles of range, with more expensive variants offering a higher range from a larger battery. Fisker wants to position it as one of the more sustainable models on the market, thanks in part to a clever use of recycled materials. The carpet, for example, is made from used fishing nets and plastic bottles.

There are plenty of other interesting innovations in the Ocean. Fisker promises that owners can get an extra 2,000 miles of range for free each year by way of its SolarSky solar panels. Bidirectional charging will allow the Ocean to feed electricity to your home or the grid. Production is expected to begin in late 2022 with its manufacturing partner Foxconn. Pricing is expected to start around $38,000 before incentives, with ultra-luxe models sending the window sticker north of $68,000.

2023 Fisker Ocean: On trend

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Karma Automotive

Karma Automotive is the company that started out selling the Fisker Karma, but following a bankruptcy sale that didn't include Fisker's brand and trademarks, it became Karma Automotive. While it's selling largely the same car that came with the company, Karma has some big plans in store.

The sole vehicle Karma Automotive produces is called the GS-6. Formerly known as the Revero, this luxury car carries much of the same design language that it did when it was the Fisker Karma. It's technically an extended-range electric vehicle, as the three-liter BMW i8 engine onboard only charges the battery and powers the electric motors, rather than providing motive force directly to the wheels. Under the floor is a 28-kWh battery that offers a range between 61 and 80 miles per charge.

But full-on electric cars are firmly in Karma's sights. Late last year, the company unveiled the underpinnings of the forthcoming GSe6. The body will be derived mostly from the GS-6, which makes sense given how close the two names are. We've only seen teasers for now, along with a 400-mile range estimate that we're taking with a grain of salt, but preorders are already open, with an estimated price tag of $80,000. We haven't heard much from Karma since.

2021 Karma GS-6: Same-same, but different

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Lordstown Motors

Lordstown Motors is one of those startups where every other story about the company seems to paint a different picture of its future. It got its start in 2018, and the following year it purchased the Lordstown assembly facility from General Motors, which has invested some $75 million in the startup to date.

Lordstown's sole future model is the Endurance electric pickup truck. It promises independent electric motors baked into each wheel hub, which would dramatically reduce the number of moving parts. It was originally estimated to hit the market by 2020, but production and release dates were pushed back.

Since 2020, Lordstown has been on a rollercoaster ride. In March 2021, Hindenburg Research published a report contending that the company misled investors with allegedly fictitious preorders and issues with both engineering and production. In June, a Wall Street Journal article reported that the company lacked the capital to start production. However, that same month, we were invited to check out Lordstown's factory and take a ride in a "beta-stage" Endurance pickup.

Since then, Lordstown announced that it was under federal investigation over concerns about its preorders and a shell-company merger that led to a public stock listing. The story continues to turn in various directions, though, because Lordstown picked up a $400 million hedge fund investment in July, followed by the startup selling its factory to manufacturing giant Foxconn in September.

Step inside Lordstown Motors and see the Endurance pickup

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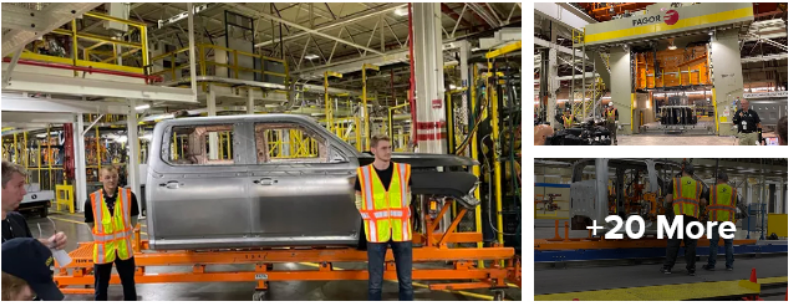

Lucid Motors

Some startups have navigated the mess of putting together an automaker from scratch and have begun selling production vehicles. Lucid Motors is one of those success stories, as the first batch of its electric Air sedan have made their way to owners' homes.

Lucid's history goes much farther back than many of its competitors. The startup was founded in 2007 with a focus on EV batteries and powertrains instead of whole cars. Lucid began designing, developing and manufacturing battery packs for FIA Formula E electric racing in 2018, and it used many of its innovations in the Air's powertrain, which is incredibly efficiently packaged. The company is still putting its production facility together, but earlier this year, the first Air models left the factory floor and went off to presumably happy customers.

I say presumably happy because I have been lucky enough to take a spin in the Lucid Air, and it rules. Its 113-kWh battery will generate an EPA-estimated range in excess of 500 miles, although peppier variants see that figure drop into the 480-mile region. In addition to its prodigious range, the Air is one hell of a luxury car, with a vast airy cabin and all the cabin-tech bells and whistles you'd expect in a luxury car. Even with half the power of its most potent variant, the Air is mighty quick, too.

Of course, cool things cost money, and the Air is no exception, with a base price of $77,400 before incentives. Thankfully, Lucid has plans to widen its range with a Tesla Model 3 competitor that could show up as early as 2025.

2022 Lucid Air looks even better in person

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Nikola

Nikola may not have the most original name of any EV startup out there (there *are* other scientists out there, after all), but one thing this startup does have is big ol' question marks around it. Nikola was created in 2014, and it unveiled the Nikola One in 2016, promising a Class 8 semi truck running on a hydrogen fuel cell with a 320-kWh battery pack. Sound familiar? Nikola sure thought so when it took Tesla to court in 2018, alleging the Tesla Semi infringed on a few of its patents.

In 2020, the startup unveiled the Badger, a pickup truck that could run on fuel cells or conventional electric propulsion. Originally, General Motors signed on as a partner to help validate and produce the Badger, but before 2020 was over, GM pulled out and the Badger ended up dead in the water. There's always a chance it could come back, though.

Nikola is yet another EV startup that found itself embroiled in all sorts of tomfoolery. Hindenburg Research published a report claiming that Nikola and founder Trevor Milton lied their way into the company's big-name deals, including misrepresenting one of its early trucks as capable of running under its own power. This past July, a federal grand jury indicted Milton on two counts of securities fraud and one count of wire fraud after his departure from Nikola in September 2020. Nikola is approaching a settlement with the SEC following Hindenburg's report, and while it has set aside some $125 million for potential civil penalties, the startup wants Milton to ultimately pay for it.

Nikola Motors' Badger electric truck wants to sink its teeth into Tesla, Rivian

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Rimac Automobili

While many startups are aiming to produce either luxury or mass-market vehicles, some EV startups have more niche intentions. That's where Rimac fits in. The brainchild of Mate Rimac, the eponymous company started as a hobby, with the first Rimac creation being a modified E30 BMW 3 Series. Over time, the company gained attention from car geeks and investors alike, to the point where Porsche started investing millions of dollars.

Rimac's stable consists of a single electric hypercar, the Nevera. While others are content to shoot for electric cars that bunches of people will line up to purchase, Rimac is taking the dream-machine route with its $2.45 million EV, which is allegedly capable of hitting 60 mph in around 1.85 seconds before running a quarter mile in just 8.6 seconds. Our Carfection family has been lucky enough to take one for a spin, and it lives up to its expectations.

Things have only become crazier for Rimac since the Nevera debuted. In fact, the startup earned enough cachet that Volkswagen relinquished control of the Bugatti brand to Porsche and Rimac, forming the Bugatti-Rimac joint venture. The automakers will exist as separate entities, but each company will lend its expertise to the other to help build the next generation of high-value, high-power electric dream machines. Better start picking up those Powerball tickets, folks.

Rimac Nevera electric hypercar has otherworldly performance and stunning looks

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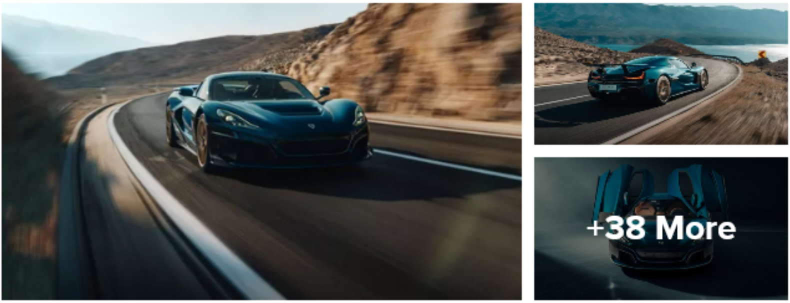

Rivian

In a few years, it's looking like Rivian will be able to move past startup status and become a fully fledged automaker. For now, though, the company just started rolling its electric vehicles out to owners, and initial results look very promising. The company has been around since 2009 in various forms, finally picking up its current name in 2011.

Currently, Rivian offers two vehicles, the fully electric R1S SUV and R1T pickup truck. We've spent plenty of time with the R1T, including running the Rebelle Rally in a preproduction model. Not only did the truck prove itself over many miles in the dirt, we've had a more civilized experience with it as well, and we found it capable and comfortable. The truck's two electric motors combine to produce more than 800 horsepower and 900 lb-ft of torque. A 135-kWh battery pack enables the R1T to reach an EPA-estimated 314 miles of range. A larger battery pack is expected to arrive next year. Air suspension is standard, and eight drive modes are on offer.

The COVID-19 pandemic hasn't exactly been a boon to Rivian's aspirations, as production woes have delayed deliveries, with many owners facing a target date of 2023 for their vehicle. In November, the company also hit a setback by way of a lawsuit alleging gender discrimination from within the company's upper echelons. Ford also announced that it will no longer plan to jointly build a vehicle with Rivian, but the startup will soldier on, and the two made it clear that there's no animosity between them.