



Mid-engine Vette a no-show in Detroit?

It was assumed that the highly anticipated mid-engine **C8 Chevrolet Corvette** would be revealed at this January's Detroit Auto Show. Now rumblings from inside General Motors suggest that might not happen, as GM has only confirmed it will debut the Cadillac XT6 three-row crossover. Oh, well. Expected reveals will include the all-new **Toyota Supra**, **Ford Mustang Shelby GT500**, the revamped **Ford Explorer** and possibly the new **Bronco**.



Ford says the next **Shelby Mustang GT500** will use 3D printed parts in its brake system.

3D printing for the GT500?

Putting vehicles together is an expensive proposition, and even though it cost Ford \$45 million to build, the automaker is hoping its new Advanced Manufacturing Center in Redford, Michigan, can show it some more efficient ways to create a car. It's starting with one of its halo vehicles — the **Ford Mustang Shelby GT500** — and using a growingly popular manufacturing technique: 3D printing. The technique has been used for some time now in the automotive field, mostly by small-volume makers of niche vehicles that require specialty parts, but don't warrant an entire factory process to create them. General Motors has also employed 3D printing to sculpt test components, and Porsche uses it to recreate otherwise impossible to find parts for vintage vehicles. Ford's Advanced Manufacturing Center has 23 different 3D printers, using media such as carbon and nylon. The next Shelby GT500 will use 3D printed parts in its brake system but, although it's a high-profile vehicle, it isn't the first. Ford said the Chinese-market **F-150 Raptor** uses a 3D printed interior part, and 3D printed tools helped speed along the **2019 Ranger's** production. In fact, as far as precedent goes, Ford claims to have purchased third 3D printer ever made in 1988.



The 2020 Toyota Corolla: It's not going anywhere, say the people who make it.

Toyota commits to cars

While other makers are eliminating the venerable four-door sedan from their lineups in favor of SUVs, crossovers and trucks, **Toyota** recently made it clear that the car will always have a stall in its stable.

Sure, car sales slid to below 30 percent of the Japan-based maker's overall sales last November. But Toyota North America CEO Jim Lentz told the Detroit

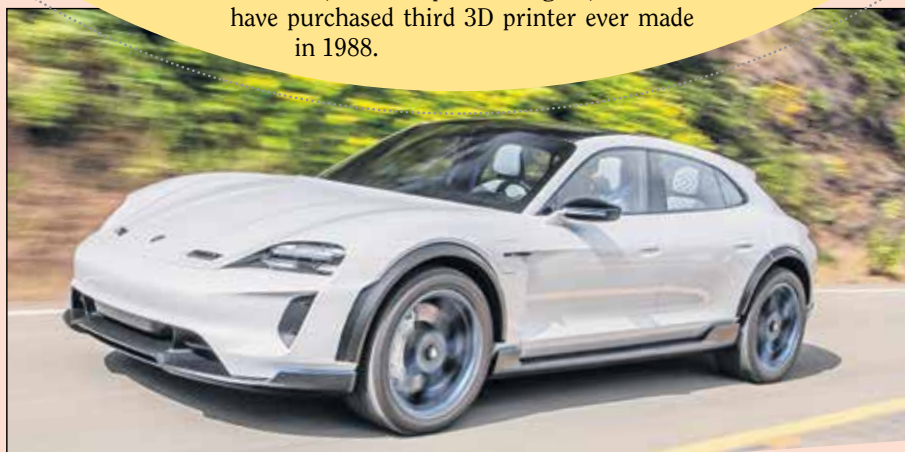


2020 Toyota Camry SE hybrid

Economic Club last week that he believes the slide is leveling out — Toyota's car sales are down 11.6 percent from last year, while its truck sales are up 8.8 percent. But Lentz counters that with the fact the public is still buying more than 4 million compact, midsize and near-luxury cars each year. "There's no way I'm going to walk away from that," Lentz said.

"We are always going to have a bias toward passenger cars." He noted that through November, Toyota sold 314,000 Camrys and 278,000 Corollas, putting those popular sedan models second and third behind the RAV4 at 389,000.

Toyota may eliminate some of its lesser performing models, however, including the Yaris subcompact, the 86 sports coupe and the smaller Prius C.



The Porsche Taycan EV doesn't go into production until next year, but it may already be sold out. That's a good sign for electric-ambitious Volkswagen, which owns Porsche.

VW's last gasp for gas?

There's been an industry-wide push by automakers electrify major portions of their line-ups by certain dates. Now couple that trend with the fact that **Volkswagen** is still smarting from the 2015 diesel-gate emissions cheating scandal that cost it some \$30 billion and forced it to invest in electric vehicle technology... to the point we may be looking at the last generation of gas-powered VeeDubs.

"Our colleagues are working on the last platform for vehicles that aren't CO₂ neutral," VW head of strategy Michael Jost told Bloomberg. "We're gradually fading out combustion engines to the absolute minimum."

There already is an electric **Golf** hatchback, but the overall Volkswagen Group (which owns Audi, Porsche, Bentley, Bugatti and Lamborghini, among others) will see a long-range EV in next year's **Porsche Taycan**. Audi's **E-Tron GT** electric sedan will start rolling out in 2020, with possibly three electric VW-badged cars to follow. By 2023, it intends to make 15 million vehicles based on its new MEB electric platform.

TEST DRIVE

2019 Nissan Armada

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to step on and off. In modern times, running boards and steps have become limited to trucks and sport utes.

In the interest of making them fashionably thin, many designers have

If you're shopping for a large SUV where we live, I don't know why you *wouldn't* pop for the added traction.

rendered them functionally useless — too thin and/or mounted too close to the body to work properly. I'm not advocating a return to the days when a running board could double for a 747 landing

strip, but a compromise would be nice. On this score, the Armada ranks fair to middling. If you've got big feet or you're wearing boots, you've got (just) enough space to step onto.

And one you're inside, the cabin is comfortable and well appointed. Loaded, luxury-leaning vehicles like this one have lots of controls to manage all the bells and whistles.

I'd rate the Armada a little above average in terms of user friendliness for the switchgear, and distraction potential. Blind spot monitoring (available as part of the Premium Package: \$1,480 on SL; standard on Platinum) has your back to combat the usual, ¾ rear blind spots. Around View Monitor (standard on SL and Platinum) gives you a bird's-eye view and split screen close-ups that are an invaluable aid to visibility, in vehicles this



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DESTINATION NISSAN
770 Central Ave., Albany, NY 12206
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LIA NISSAN
2233 Central Ave., Schenectady, NY 12304
518-579-2000 www.lianissanschenectady.com

LIA NISSAN OF GLENS FALLS
373 Dix Ave., Queensbury, NY 12804
518-681-3800 www.lianissangf.com

LIA NISSAN OF SARATOGA
2906 Route 9 Malta, NY 12020
518-633-1133 www.lianissansaratoga.com

size. Use it to park once, and you'll never want to do without it.

The drivetrain features a 5.6L V-8 (390 horsepower, 394 lb.-ft. of torque) with a seven-speed automatic transmission. It's a strong pairing, with enough muscle to move the nearly three ton Armada briskly when required, or to tow up to a maximum of 8,500 lb. Fuel economy isn't a strong point — 13/15/18 per EPA and

I managed 14 during my test. But, that's unlikely to be a deal breaker for big ute shoppers.

They know it's par for the course — a course that regularly includes a 19th hole, with gas pumps.

A regular contributor to the Times Union for more than 25 years, Dan Lyons is the award-winning author of six books, and photographer of 180 calendars.