

Audi R8 e-tron aims for high performance and self-driving tech

May 27 2015, by Nancy Owano



Audi raised the curtains on an elegant all-electric car with self-driving

capabilities recently at the Consumer Electronics Show (CES) Asia in Shanghai, China. This is the Audi R8 e-tron piloted driving concept car—an impressive high-performance sports car from Audi with self-driving technology, all-electrically powered.

Jonathan Burn, writing in *Auto Express*, said this becomes Audi's third autonomous [concept](#) vehicle following experiments with the RS7 and A7.

The German luxury carmaker Audi unveiled the supercar bathed in flashing lights and accompanied by a screen flashing its own callouts about the car's many interesting features. The news release said "340 kW of power, 0 to 100 km/h (62.1 mph) in 3.9 seconds and a driving range of 450 km (279.6 mi)." The car achieves an electric range of 450 kilometers (279.6 mi) and is capable of reaching 62 miles per hour (0-62) in 3.9 seconds.

It has a top speed of 155 [mph](#), said Jerin Mathew in *International Business Times*. It also has a "multimaterial Space Frame." A rear [car](#) body module is made of carbon fiber reinforced polymer. The walls of the luggage compartment shell are corrugated, to absorb extreme amounts of energy with little material weight in case of a rear-end collision. This piloted driving concept car attains a low Cd value of 0.28.

About the battery: This is a high-voltage battery—Audi produces the high-voltage battery itself—based on a new lithium-ion technology. Audi said the battery's energy capacity has grown to approximately 92 kWh. The Combined Charging System (CCS) on board allows charging with direct and alternating current—the customer can charge the large battery in less than two hours.

Audi said "Data is acquired from the interplay of an array of sensors: a new type of laser scanner, several video cameras, ultrasonic sensors and

radar sensors at the front and rear." Burn said in *Auto Express* that "Data from all of these sources is then sent to a central computer within the car which creates a virtual picture of the car's [environment](#)."

Audi said it can build the R8 e-tron in handcrafted quality to meet special customer requests. The company also said it uses its high-performance [electric sports car](#) primarily as a high-[tech](#) mobile laboratory.

"The Audi R8 e-tron piloted driving represents the technology [trends](#) of our industry," said Audi CEO, Rupert Stadler, according to *International Business Times*.



Nonetheless, the concept car has its advantages as a window into engineering strengths at Audi and into what they would try to achieve in the marketplace. *Autoblog*'s European Editor Noah Joseph commented too on the significance of this [concept car](#) with its self-driving tech. "Designed as they are to take the driver out of the equation, you might think that the idea of an autonomous vehicle would seem diametrically opposed to that of a supercar. But Audi disagrees. The German automaker has cooked up a series of 'piloted driving' concepts that are increasingly focused on [performance](#), and this could be the ultimate iteration yet."



He added, "Just what the point is in engineering (or buying) one of the best-driving cars on the market and then handing over its operation to a computer, we don't quite get. But at least we can rest easy knowing that Audi is not giving up on performance as autonomous [tech](#) turns the driver into just another passenger."

Viknesh Vijayenthiran in *Motor Authority* said: "Like most automakers, Audi will gradually roll out self-driving technology on its cars," and initially the tech will handle parking situations and slow-moving traffic.

With the evolving legal framework and other advances, he added, we may eventually see cars that handle all [driving](#) situations on their own.

More information: [digital.audi-presskit.de/en/ce ... tron-piloted-driving](https://digital.audi-presskit.de/en/ce...tron-piloted-driving)

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