

Audi h-tron Quattro concept uses hydrogen, four-minute refuel

January 13 2016, by Nancy Owano



Audi h-tron quattro concept

Audi's appearance at the North American International Auto Show was highlighted by a key talking point at this event.

They showcased the Audi h-tron Quattro "concept" [car](#) to demonstrate among other things advances in [fuel cell](#) technology. The car combines fuel cell capability with an output of up to 110 kW with a [battery](#) that can provide a temporary boost of 100 kW.

Car and Driver's Michael Taylor wrote that the car actually runs as a front-drive vehicle at low speeds and light throttle openings, drawing all of its power from the battery rather than fuel-cell stack. "When the battery begins to run down or power demand increases, the car starts to push hydrogen through its fuel [cell](#)."

The car can be fully refueled with hydrogen in around four minutes, ready to drive for up to 600 kilometers (372.8 mi).

Where are the hydrogen tanks? There are three of them, located under the passenger or luggage compartment. At a pressure of 700 bar, said Audi, they store enough hydrogen the 372.8 mi range.

As for the battery, it is a compact lithium-ion battery weighing less than 60 kilograms (132.3 pounds), beneath the passenger compartment, said Audi, "to optimize the center of gravity."

The power from the fuel cell and [battery](#) drives the two electric motors located on front and rear axles.

Chris Ziegler in *The Verge* summed up its impressive stats. "The company says it'll run around 372 miles on a single tank of hydrogen, sprint to 62 mph in under seven seconds, and can refill in just four [minutes](#)."

Aaron Turpen in *Gizmag* talked about the "hydrogen" fuel cell vehicle as well, with its advanced [fuel cell technology](#) and forward-thinking piloted driving [tech](#).

Martyn Williams of the IDG News Service commented: "Hydrogen fuel cells convert hydrogen gas into electricity, harnessing the most abundant element in the universe to power a vehicle with the only byproduct being water vapor. The technology is in its infancy, but concepts like Audi's show that [automakers](#) believe hydrogen has a serious chance to replace gasoline in hybrid cars of the future."

Adnan Farooqui in *Ubergizmo* likewise focused on the hydrogen-powered concept. "The company has unveiled its h-tron quattro SUV concept that's powered by [hydrogen](#) coupled with a fuel cell [powertrain](#)."

Another key talking point about the [concept car](#) was the interior. Since this is a concept, said Farooqui, Audi can try some things that it can't necessarily bring to production cars immediately. Farooqui said the interior was quite "conceptual and futuristic, with things like curved OLED displays making the cut."

Jens Meiners, writing in *New York Daily News*, said, "we truly appreciate the [futuristic](#) interior. It paves the way for the next-generation A8 and further Audis. With curved, touch-sensitive OLED displays, the h-tron's cockpit is as intuitive to operate as it is fascinating to look at. There are OLED in the rear compartment as well, to display the highly sophisticated entertainment system."

© 2016 Tech Xplore

Citation: Audi h-tron Quattro concept uses hydrogen, four-minute refuel (2016, January 13)
retrieved 23 April 2024 from
<https://techxplore.com/news/2016-01-audi-h-tron-quattro-concept-hydrogen.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.
