

## The Race To Get Your Hands Off The Wheel

By Lucas Laursen

Posted 16 Sep 2013 | 20:33 GMT

A fleet of cars and drivers whisks visiting journalists around the Frankfurt Motor Show's sprawling, [144-hectare site](http://www.messefrankfurt.com/frankfurt/en/media/willkommen/faktenzahlen.html) (<http://www.messefrankfurt.com/frankfurt/en/media/willkommen/faktenzahlen.html>). Judging by the number of exhibits of self-driving car technology this year, future visitors can expect their courtesy cars to lack drivers. It's a matter of putting together many existing technologies in an affordable, safe system.

One piece of that future system nearly clobbered a two-dimensional cutout of a child last week on a fenced-off piece of asphalt outside Hall 10. There, Bosch employees led by Werner Uhler were demonstrating a stereo optical camera system Uhler says could be cheaper than combined radar and optical systems used for collision avoidance today. The device is mounted on the front window of a testbed car, adjacent to the rear-view mirror. As the testbed approached a parked car, Uhler, seated in the backseat, said, "We will drive along...and suddenly a child will turn up and we will brake."



That was true.

The colorful cutout of a child burst into harm's way from behind the parked car, as promised. The testbed car, moving at 35 kilometers per hour, as per New Car Assessment Program (NCAP) guidelines, slammed the car to a full stop within a few feet of the cardboard child. The NCAP has [reported](http://www.euroncap.com/results/aeb.aspx) (<http://www.euroncap.com/results/aeb.aspx>) on commercial so-called Emergency Autonomous Braking (EAB) since 2010. In the real world, cars spend a lot of time driving faster than 35 kph and EAB's role is more about damage control than damage avoidance. But sending the cutout child flying, even if it is less distance than a human-driven car would have, might undermine the clear-cut message Bosch—and Daimler, which [unveiled](http://www.nytimes.com/2013/09/16/automobiles/the-driver-begins-to-take-a-back-seat.html?ref=technology&r=0&pagewanted=all) (<http://www.nytimes.com/2013/09/16/automobiles/the-driver-begins-to-take-a-back-seat.html?ref=technology&r=0&pagewanted=all>) a very autonomous car at the Frankfurt show—and other manufacturers are sending: that they will soon drive your car better than you can. Put another way: future driving software, such as that announced by Audi (<http://www.detroitnews.com/article/20130912/AUTO01/309120050>), won't get bored or distracted in stop-and-go traffic.

It's not just luxury cars, either: Volvo showed off its latest [moose-avoidance technology](http://www.gizmag.com/volvo-autonomous-cars/28161/) (<http://www.gizmag.com/volvo-autonomous-cars/28161/>) in Frankfurt, and Ford already offers Focus drivers a driver assistance [package](http://www.ford.co.uk/Cars/Focus/Focus-ST/Safety) (<http://www.ford.co.uk/Cars/Focus/Focus-ST/Safety>), Nissan ([http://online.wsj.com/article\\_email/SB10001424127887323407104579038832031956964-lMyQjAxMTAzMDIwNzEyNDcyWj.html](http://online.wsj.com/article_email/SB10001424127887323407104579038832031956964-lMyQjAxMTAzMDIwNzEyNDcyWj.html)) and a chorus of other car makers have declared that they expect autonomous cars to reach commercial viability by 2020.

Autonomous braking is one of a slew of new technologies leading toward what manufacturers call "assisted driving," and "highly automated driving"—or more bluntly, "self-driving cars." Cars have assisted their drivers since the commercial advent of cruise control in 1958 ([http://www.oldcarbrochures.com/static/NA/Chrysler and Imperial/1958 Chrysler/1958 Chrysler Auto-Pilot Brochure/1958%20Chrysler%20Auto-Pilot%20Brochure-01.html](http://www.oldcarbrochures.com/static/NA/Chrysler%20and%20Imperial/1958%20Chrysler/1958%20Chrysler%20Auto-Pilot%20Brochure-01.html)). But in the last few years, cars entering the market have begun to alert drivers to impending parking accidents, maintain a safe distance from cars ahead of them, and stay in an assigned lane. Where they show their limits, says Michael Fausten, the director of Bosch's autonomous driving team, are

unanticipated combinations of risky situations. Solving those will require heavy mathematical lifting, he says.

Next door to the Bosch demonstration was a Volkswagen self-parking car, which a frazzled driver might want to buy after, say, a near-miss with an errant child. But on a drizzly day, the car's handlers told me to come back when it was sunny. So I flagged down a press car, got inside, and asked the chauffeur whether all the self-driving car technology on display made him worry about his job security. No, he said, without elaborating.

If he's right, chauffeurs and other drivers may become more like today's commercial pilots, overseeing a suite of interacting safety systems. If he's wrong, and autonomous driving systems take over our cars, journalists everywhere will lack an old standby source of quotes: the anonymous driver.

*Photo: Daimler*