

Vibrating steering wheel might prevent car accidents

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I've talked a lot about intelligent systems in cars that are steering the industry towards a safer overall product by allow computers to take over where human error would mean an accident.

There has been talk of new seatbelts, [new braking system](#) [1], and [sensors](#) [2] that communicate with traffic lights and other cars, but this new idea would involve

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something that most drivers are loathe to give up control of: the steering wheel.

Eelke Folmer and Burkay Sucu, University of Reno in Nevada, have created a [steering wheel designed to vibrate](#) [3] when you're in danger of driving off the road. But this wasn't designed with distracted drivers in mind as much as drivers blinded by the sun or the high-beams of an oncoming car.

It's a big problem that nearly every driver can relate to during particular times of the year when the sun rise/set coincides with the big commute. It should also help in snowy areas where the sun reflecting off the snow can be blinding.

As someone who missed the sign for the George Washington Bridge and ended up in downtown Manhattan after being blinded by the afternoon sun, I'm a big fan of this idea. I just missed a bridge and added some time to my trip, but it could have been much worse if I had missed a bend in the road or edged off the road because I couldn't see the lines.

In fact, [research](#) [4] shows that head lights and sun glare are often a factor in crashes.

So how does it work?

Essentially, the car would be equipped with GPS and cameras that would sense when the driver was "dazzled" by the sun or a bright light. If the car started to veer either left or right, the sensors would respond by vibrating on either the left or right side of the steering wheel, respectively, depending on the drift direction. The vibrations are tuned to 275 hertz, a vibration that human skin is particularly sensitive to.

The sensors are currently in testing—the biggest change right now looks like properly positioning the vibrators in the steering wheel—but hold great promise for the future.

Critics should take comfort in the fact that the car doesn't take over at all, merely nudges you in the correct direction. The worst that could happen? It vibrates and you ignore it. It's definitely better than driving blind.

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Links:

[1] <http://www.ecnmag.com/articles/2012/11/why-i-dont-trust-cars-think-themselves>

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[2] <http://www.ecnmag.com/articles/2012/11/%E2%80%9Csmart%E2%80%9D-traffic-light-could-cut-commutes-60-percent>

[3] <http://gizmodo.com/5977392/haptic-steering-wheels-could-save-you-from-the-blinding-sun>

[4] http://www.fcsn.gov/05papers/Choi_Singh_IVA.pdf%20