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AUTOMOTIVE

## Jaguar Land Rover testing immersive 3D displays for drivers, passengers

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Passengers can also enjoy Jaguar's 3D in-car experience. Image credit: Jaguar Land Rover

By SARAH RAMIREZ

British automaker Jaguar Land Rover is developing 3D display technology that looks to balance safety and entertainment.



In future vehicles, Jaguar Land Rover hopes to incorporate innovative displays that project safety alerts. In one of the first uses of in-vehicle augmented reality among automakers, the displays will also allow passengers to personalize their rides.

## 3D on the road

Jaguar Land Rover has partnered with the Centre for Advanced Photonics and Electronics (CAPE) at University of Cambridge to develop an immersive head-up display.

Among the safety information shared with drivers through the display are lane departure, hazard detection, navigation and reducing poor visibility due to environmental conditions. AR is used to add depth perception to the safety alerts that are projected onto the road ahead of the driver.



Safety alerts will be projected onto the road for drivers. Image credit: Jaguar Land Rover

According to the automaker, studies conducted in Germany show that use of such 3D displays improves drivers' reaction times and depth judgements.

Per a YouGov report on affluent auto purchasers, U.S. drivers are interested in technology that enhances vehicles' safety, security and convenience. Vehicle technology is quickly becoming a key factor in purchasing decisions, along with design, safety, comfort and price (see story).

Passengers are also slated to benefit from Jaguar's 3D display.

Head and eye tracking technology would eliminate the need for individual screens or special eyewear by following riders' positions. Passengers would also be able to choose their own infotainment experiences, whether they want to watch movies or view journey details and points of interest.

This application could become even more useful as traditional ownership models change and ride-sharing becomes more commonplace in the future.

## Autonomous applications

Jaguar's 3D in-car experience is part of the automaker's "Smart Cabin" plan, in which it uses technology to enhance vehicles' safety, entertainment and convenience features ahead of a more autonomous future.

For instance, Jaguar's Green Light Optimal Speed Advisory (GLOSA) system allows cars to communicate with traffic lights and inform drivers what the optimal driving speed is to help free up congestion.

Many drivers have a habit of speeding up in attempts to beat out traffic lights. However, harshly accelerating can adversely affect brakes and increase air pollution (see story).

Jaguar Land Rover has also been developing a new system that it hopes will increase consumer trust in autonomous vehicles as the development of self-driving cars continues.

As automakers continue to invest resources into self-driving vehicles, consumers are still apprehensive about the new technology, particularly about sharing the road with autonomous cars. Jaguar is testing new projection pods that are designed as one way to help ease drivers' concerns (see story).

More luxury carmakers are looking to improve their infotainment and driver assistance systems.

According to the J.D. Power 2019 Initial Quality Study, European automakers, including Jaguar, have fallen behind with their infotainment offerings.

However, new vehicle owners have seen improvements in infotainment systems, reporting less problems with Bluetooth and voice recognition. Meanwhile, advanced driver assistance systems have caused more headaches for drivers as they become more mainstream (see story).