ADVANCED DRIVER ASSISTANCE SYSTEMS AND AUTONOMOUS DRIVING ARE MEANT TO INCREASE SAFETY IN AUTOMOTIVE DRastically, BUT THEY NEED TO BE TESTED AND VALIDATED TO ACT PROPERLY IN ANY HAZARDOUS SITUATIONS.

For a rapid and simple virtual test of your systems, rely on the unique combination of a visually realistic driving simulator, sound dimension and physics-based simulation offered by ANSYS VRXPERIENCE.

ANSYS VRXPERIENCE provides a multisensory virtual driving experience, that lets you create, test and optimize your driving equipment in real-world conditions, virtually.

Based on compelling physical simulation software and systems, ANSYS VRXPERIENCE provides a predictive experience for the validation of the performance of your intelligent headlights, your ADAS systems, and your Human-Machine Interface. Saving on physical validation time and costs, you speed up the engineering process at an early stage of development on digital test tracks. Drive your future car with realistic traffic conditions, including various weather, oncoming vehicles, and pedestrians scenarios, anticipating your vehicle’s reaction to any critical situations.

VRX enables Lucid Motors’s engineers to see how the headlight’s beam will look on the road and how it interacts with sensors on the car. This allows us to shape and change the beam and make sure it accurately simulates its behavior and characteristics.

Dr. Hans Christoph Eckstein
Senior Technical Specialist, Optical Engineering
LUCID MOTORS
**IMMERSIVE**

**HMI EXPERIENCE**

For the first time, discover a reliable and accurate method of testing driver interactions with your future HMI, without endangering lives or damaging expensive equipment.

Mixing sound, vision, and touch, ANSYS VRXPERIENCE HMI provides a comprehensive, human-centric, virtual experience. Within an immersive driving environment, efficiently evaluate the driver’s responses to new intelligent traffic systems or advanced proactive safety systems, and ensure that he will understand important information instantaneously.

**ADVANCED**

**ADAS & AV TESTING**

Thoroughly develop and test complex ADAS systems and autonomous vehicles virtually, by connecting optical and functional operations in a single environment with ANSYS VRXPERIENCE Sensors.

Based on realistic driving conditions, this autonomous vehicle simulator makes the same reliable decisions as the future real-world connected vehicle will. By providing a realistic physics-based sensor response in real time, for camera systems, LiDARs, radars and ultrasonic sensors, ANSYS VRXPERIENCE sensors gives the digital car all required information about its environment, enabling you to create the safest autopilot systems.

**INTERACTIVE**

**HEADLIGHT VALIDATION**

To deliver highly qualitative and smart adaptive automotive lighting, benefit from the first virtual lab for testing and validating front headlight systems.

Within seconds, compare different headlight configurations, physically measured or simulated from SPEOS, and quickly review the road illumination and lit appearance of your equipment. It has never been so easy to evaluate the beams in driving conditions and perform regulation checks! Adjust the performance of your headlight accordingly, for the of everyone on the road. ANSYS VRXPERIENCE Headlamp’s digital driving experience eliminates the need for real night driving tests. ANSYS VRXPERIENCE Headlamp helps you ensure that the OEM and Tier 1 philosophy is applied through the whole lighting development process.

VRX is compatible with any VR headset, sizeable multi-screen display systems, virtual reality systems and can be delivered with optimized steering wheels and car interface controllers to maximize driving substitution.

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