

Applied Intuition and Luminar team up to accelerate ADAS and AD development for automakers

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The partnership will jointly provide the first validated sensor models

Applied Intuition, a Silicon Valley-based vehicle software supplier, and Luminar, a leading global automotive technology company announced on April 23 joining hands to accelerate the development and adoption of advanced driver-assistance systems (ADAS) and automated driving (AD) systems for automakers.



Source: Getty/metamorworks

In the first step of the partnership, the companies will jointly provide the first validated sensor models of Luminar lidars, enabling automakers to test and validate ADAS and AD perception systems using Applied Intuition Sensor Sim, a physics-based sensor simulator, with integrated sensor models of Luminar lidars.

According to a company press release Lidar sensors and software play a crucial role in ADAS and AD safety and performance, but testing and validating perception systems in the real world can be time-consuming, expensive, and dangerous. Studies show that fully autonomous systems would need to drive millions of real-world miles to demonstrate safety.

Automakers can save millions of dollars annually by shifting 90% of real-world perception development and testing into simulation. Using Applied Intuition and Luminar's joint solution, automakers will be able to accurately test lidar-based perception systems in virtual environments while reducing testing costs and accelerating time to market.

Sensor Sim enables automakers to create and simulate edge case scenarios, enabling the end-to-end testing of capabilities such as pedestrian detection and avoidance in urban areas. The integrated Luminar sensor models accurately capture lidar behaviors like dynamic scan patterns. This reduces the simulation-to-real domain gap, ensuring that simulation tests correlate with a lidar's real-world performance.

Luminar uses Sensor Sim and Applied Intuition Object Sim, a prediction, planning, and controls simulator, to validate its sensor models to ensure their high realism and accuracy. Luminar and automakers can also leverage Applied Intuition Cloud Engine to run scalable regression tests in cloud simulation and Validation Toolset to assess performance and track coverage across different operational design domains.

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