

## Press

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### **Osram LEDs and laser solutions increase safety, enable customizable interiors in Rinspeed microSNAP vehicle**

Biometric identification, ambient lighting, smart headlights and more illuminate the future of automotive technology in Rinspeed's concept vehicle at CES 2019 in Las Vegas

**[Osram](#), a global high-tech lighting company, today announced it is the exclusive lighting partner for [Rinspeed's](#) latest concept vehicle, microSNAP. The vehicle features a variety of Osram components for lighting and sensing applications, such as biometric identification, ambient lighting, smart headlights and more. These technologies are lighting the way to an automotive future that is more urban, efficient and dynamic. For the third year, the global leader in automotive lighting has supported the Rinspeed concept vehicle, which shows how advanced sensing technologies and innovative illumination will transform the way the world moves. The vehicle makes its debut at CES 2019, Jan. 8-11 in Harman's exhibit at the Hard Rock Hotel.**

Similar to Rinspeed's previous Snap vehicle, the microSNAP has a chassis, known as a "skateboard" containing the drivetrain and most of the IT, which connects to various body types or "pods." The microSNAP design is considerably more compact, making it an exceptionally versatile tool for last-mile transportation or express delivery of goods. As autonomous driving and urbanization proliferates, having smaller, more flexible vehicles will be critical in reducing congestion in cities and optimizing vehicle efficiencies.

While versatility and efficiency are important pieces of the future mobility puzzle, safety still will be paramount. That is why Osram delivered both visible lighting and infrared components to microSNAP's interior and exterior – giving the vehicle unique abilities to monitor its internal and external environment.

Outside the vehicle, microSNAP uses Osram's [Eviyos](#), the world's first hybrid LED for smart headlights. Eviyos contains individually controlled pixels that automatically turn on and off, allowing more of the road to be illuminated without blinding oncoming drivers.

Beyond headlights, Eviyos projects images and messages on the road to alert passengers and pedestrians, ultimately improving safety and enhancing the riding experience.

Self-driving vehicles will lead to new safety concerns outside of vehicles. As a provider of high-power infrared pulse lasers in LiDAR systems, Osram is committed to making autonomous driving as safe as possible for everyone. With driverless cars, understanding the movement and intent of both pedestrians and vehicles is crucial in urban environments. The front and rear of the vehicle is made safer through a dynamic brake indicator that communicates with those outside the vehicle. LEDs located on the pillars of microSNAP's pod and the front of the skateboard are illuminated at different levels to show the entire braking process. This intuitive lighting application helps communicate to pedestrians by letting them know when the vehicle is at a complete stop.

“Visible and infrared lighting create numerous safety opportunities that are integral for autonomous vehicles as they become a reality. We're excited to showcase those possibilities with Rinspeed on its microSNAP vehicle,” said Wolfgang Lex, Vice President and General Manager of Automotive at Osram Opto Semiconductors. “From LiDAR sensing to adaptive headlights and information projection, LEDs carry the torch to a safer and more robust driving future.”

Inside microSNAP, Osram continues to increase safety with infrared components by applying them to the vehicle's 3D facial recognition and iris scanning systems. Not only do these technologies increase security by ensuring only approved individuals occupy the vehicle, such as for autonomous ridesharing, they also allow the vehicle to adapt to an individual's desired settings. Once an individual is recognized through biometric identification, everything from personalized lighting options to preferred temperature can be adjusted to meet a passenger's previously set needs. These same components also empower gesture recognition used to move and enlarge content from a center console screen to the windshield.

Further assistance for ridesharing includes passenger monitoring, which scans the interior for forgotten objects after a rider leaves and notifies them with an audible signal or mobile

message. Health monitoring is also featured in microSNAP through Osram's infrared LEDs (IREDS), which track passengers' vital signs for sudden changes.

“Autonomous vehicles create new and transformational opportunities for our infrared emitters and sensors,” said Bodo Ischebeck, Vice President and General Manager of Industry and Mobile Devices at Osram Opto Semiconductors. “Osram's IREDS are enabling advanced biometric applications in Rinpeed's microSNAP – enhancing safety, security and well-being for passengers. Our focus will continue to be delivering dynamic LEDs to customers and giving them ultimate design freedom so they can create innovative spaces that improve people's lives.”

Supporting microSNAP's highly customizable environment, Osram provides human centric lighting to the vehicle's interior, which emphasizes the interplay of light, atmosphere and space to enhance the well-being of passengers. Osram's [Osire E4633i](#) adds to the experience by connecting lighting to the sound system for a fully integrated light show. As vehicles begin to take over driving functions, their interiors will become more of a living space, making this kind of customization a gateway to new interior uses such as for work and leisure.

[At CES 2019](#), Osram will showcase many of its innovative automotive lighting technologies, including its wide range of interior and exterior automotive applications in booth #8521 in the North Hall of the Las Vegas Convention Center.

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Osram's Eviyos features individually controlled pixels that enable smart headlights on Rinspeed's microSNAP.

Picture: Rinspeed

### **ABOUT OSRAM**

OSRAM, based in Munich, is a leading global high-tech company with a history dating back more than 110 years. Primarily focused on semiconductor-based technologies, our products are used in highly diverse applications ranging from virtual reality to autonomous driving and from smartphones to networked, intelligent lighting solutions in buildings and cities. OSRAM utilizes the infinite possibilities of light to improve the quality of life for individuals and communities. OSRAM's innovations will enable people all over the world not only to see better, but also to communicate, travel, work, and live better. As of the end of fiscal year 2018 (September 30), OSRAM had approximately 27,400 employees worldwide. It generated revenue of more than €4.1 billion in fiscal year 2018. The company is listed on the stock exchanges in Frankfurt and Munich (ISIN: DE000LED4000; WKN: LED400; trading symbol: OSR). Additional information can be found at [www.osram.com](http://www.osram.com).

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