

PRESS RELEASE

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Bosch Rexroth to provide two Advanced Driving Simulators to BMW Group

Bosch Rexroth has signed a contract with BMW Group for the delivery of two advanced driving simulators incorporating Bosch Rexroth's own motion platforms. These will be used for testing autonomous driving solutions and vehicle dynamics.

High fidelity system to simulate urban scenarios with autonomous driving capabilities and/or advanced driver assistance systems (ADAS), critical to all aspects prior to live testing of autonomous vehicles

► High fidelity system features the largest X-Y table with a 18 m x 15 m displacement

► High dynamic system can reach up to 1 g acceleration and velocities of up to 8 m/s for testing vehicle dynamics during design phase and prototyping



Photo: Artist impression of the Advanced Driving Simulator to BMW Group (photo credits: Bosch Rexroth)

Bosch Rexroth, the leading company in drive and control solutions, has won a contract from BMW Group for two driving simulators. The simulators will be based on Rexroth's most advanced motion systems. They will enable BMW Group to develop and test autonomous driving solutions and vehicle dynamic performance. Signed in January 2018, the two systems will be delivered in 2020.

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The high-fidelity motion platform features a high-performance hexapod and rotating yaw table, all on top of a highly robust X-Y table with a large 18 m by 15 m displacement. The large X-Y displacement helps to maintain the illusion of driving in a wide range of scenarios, making it ideal for testing autonomous driving solutions.

Linear motors, together with a very stiff structure, enable the machine to support a 6000 kg payload and still deliver high acceleration and velocities. Linear motors are the only way to achieve the high accelerations of up to 1 g specified by BMW Group. And a unique wheeled track replaces more traditional rails to support high speeds of up to 8 m/s in both longitudinal and lateral directions.

"Autonomous vehicles require significant testing before they can be allowed on the roads," says Rik de Swart, Sales Manager Motion Simulation Technology. "Our motion platform provide the ideal solution for safely testing many different scenarios, even ones that would be impossible to set up in real life. Drawing on our long experience in delivering automotive simulator solutions, these new systems for BMW Group raise the bar in several ways, such as the new gantry system needed to achieve the very large Y excursions."

For the projection system, Bosch Rexroth is once again partnering with AV Simulation. AV Simulation will provide state-of-the-art domes with 360 degree projection systems. The completed driving simulators will be delivered and installed by Bosch Rexroth, with target completion dates of mid-2020 for the high fidelity system and end-2020 for the high dynamic system.

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As one of the world's leading suppliers of drive and control technologies, Bosch Rexroth ensures efficient, powerful and safe movement in machines and systems of any size. The company bundles global application experience in the market segments of Mobile Applications, Machinery Applications and Engineering, and Factory Automation. It enables fully connected applications with intelligent components, tailored system solutions, and services. Bosch Rexroth offers its customers hydraulics, electric drives and controls, gear technology and linear motion and assembly technology, including software and interfaces to the Internet of Things. With locations in over 80 countries, more than 30,500 associates generated sales revenue of 5.5 billion euros in 2017.

To learn more, please visit www.boschrexroth.com

The Bosch Group is a leading global supplier of technology and services. It employs roughly 402,000 associates worldwide (as of December 31, 2017). The company generated sales of 78.1 billion euros in 2017. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT company, Bosch offers innovative solutions for smart homes, smart cities, connected mobility, and connected manufacturing. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, crossdomain solutions from a single source. The Bosch Group's strategic objective is to deliver innovations for a connected life. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life." The Bosch Group comprises Robert Bosch GmbH and its roughly 440 subsidiary and regional companies in 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. The basis for the company's future growth is its innovative strength. At 125 locations across the globe, Bosch employs some 64,500 associates in research and development. Additional information is available online at www.bosch.com, www.iot.bosch.com, www.boschpress.com, www.twitter.com/BoschPresse.

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