Trimble Releases Turnkey Autonomous Robotic Scanning Solution
Boston Dynamics' Spot Robot Fully Integrated with the Trimble X7 3D Laser Scanner and Trimble FieldLink Software Now Available as a Complete Solution from Trimble

SUNNYVALE, Calif., Oct. 19 2021 /PRNewswire/ -- Trimble (NASDAQ: TRMB) announced today the release of the Trimble® X7 3D laser scanner and Trimble FieldLink software fully integrated with Boston Dynamics' Spot® robot. This exclusive turnkey solution from Trimble, jointly developed with Boston Dynamics, facilitates autonomous operation on construction sites and takes advantage of the robot's unique capabilities to navigate challenging, dynamic and potentially unsafe environments. Trimble's 3D data capture technology, integrated with Spot, enables a continuous flow of information between the field and the office for consistent, on-going documentation of jobsite progress.

"The relationship between Trimble and Boston Dynamics is really special. Users don't have to figure out the integration of the scanner. It also enables us to work with only one vendor," said Thai Nguyen, director of Virtual Design and Construction, Hensel Phelps. "Using the X7 integrated with Spot lets us document changes on the jobsite and make important decisions in the field, rather than waiting hours or potentially days for the information to be relayed to our project staff. This allows us to make the best decisions as quickly as possible with the best information."

"Our construction customers require turnkey solutions for autonomous jobsite documentation and analysis. Boston Dynamics' strategic alliance with Trimble has allowed us to build that solution collaboratively by combining our strengths in robotics and construction, respectively," said Brian Ringley, construction product manager at Boston Dynamics. "This unique integration is simply unprecedented—it's never been easier to scan a jobsite, and the increased scanning frequency is creating new opportunities in automated project analysis and insight."

The integration is focused on the automated capture of field construction data through the use of Trimble 3D capture technology and the Spot robot. The autonomous workflow for the X7 laser scanner uses fully integrated Spot robot controls in FieldLink software to create a predefined path of waypoints for Spot to follow and collect laser scans. The data collection missions can be scheduled to run on a regular and consistent basis for design validation and progress reporting. The advantage of this combination is increased efficiency and real-time, as-built data analysis in the field and in the office.

Laser scans collected using the X7 scanner and the Spot robot can be tied to a jobsite project coordinate system, as well as individual scan stations. The data is collected, and then made into a composite point cloud in real-time on the Trimble tablet controller before leaving the site. While performing autonomous operations, Spot's docking station enables the in-field charging of batteries on both the robot and the X7 3D laser scanner, and also provides the continuous transfer of data through a Gigabit Ethernet connection to the office.

See Spot, Trimble FieldLink software and the Trimble X7 3D laser scanner at work with Hensel Phelps.

Availability

The complete solution includes the Trimble X7 3D laser scanner, Trimble FieldLink software, a ruggedized tablet controller, and Boston Dynamics' Spot Enterprise robot with enhanced autonomy features, plus an integrated self-charging docking station for Spot and the X7 laser scanner. This turnkey package is now available through Trimble and select BuildingPoint™ distribution partners. For more information, visit: fieldtech.trimble.com/en/product/spot.

About Boston Dynamics

Boston Dynamics is the global leader in developing and deploying highly mobile robots capable of tackling the toughest robotics challenges. Our robots are equipped with advanced mobility, dexterity and intelligence, enabling automation in unstructured or hard-to-traverse spaces, from industrial plants and construction sites, to distribution centers and warehouses. We have three robots in our portfolio - Spot®, Stretch™ and Atlas® - as well as Pick™, a computer vision-based robotics solution for logistics. For more information on our company and our technologies, please visit: www.bostondynamics.com.

About Trimble Construction

Trimble is developing technology, software and services that drive the digital transformation of construction with solutions that span the entire architecture, engineering and construction (AEC) industry. Empowering teams across the construction lifecycle, Trimble's innovative approach improves coordination and collaboration between stakeholders, teams, phases and processes. Trimble's Connected Construction strategy gives users control of their operations with best-in-class solutions and a common data environment. By automating work and transforming workflows, Trimble is enabling construction professionals to improve productivity, quality, transparency, safety, sustainability and deliver each project with confidence. For more information, visit: construction.trimble.com.

About Trimble

Trimble is an industrial technology company transforming the way the world works by delivering solutions that enable our customers to thrive. Core technologies in positioning, modeling, connectivity and data analytics connect the digital and physical worlds to improve productivity, quality, safety, transparency and sustainability. From purpose-built products to enterprise lifecycle solutions, Trimble is transforming industries such as agriculture, construction, geospatial and transportation. For more information about Trimble (NASDAQ: TRMB), visit: www.trimble.com.

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