Trimble and Boston Dynamics Partnership to Extend Use of Autonomous Robots in Construction

Trimble and Boston Dynamics are entering a strategic alliance to integrate a variety of construction data collection technologies with Boston Dynamics' Spot robot platform. The jointly-developed solution will combine the Spot robot's autonomous mobility with Trimble's data collection sensors and field control software to enable automation of repetitive tasks such as site scans, surveying and progress monitoring, while taking advantage of the robot's unique capabilities to navigate dynamic and potentially unsafe environments. The relationship gives Trimble exclusivity to sell and support the Spot robot with integrated scanning, total station and GNSS technologies for the construction market.

This turnkey solution will streamline operation of the robot and provide quality control for missions, enabling construction project managers to easily get a clear picture of jobsite progress on an ongoing basis. Trimble technologies integrated [with the robot](#) enable accurate, scalable and rapid data acquisition while Trimble's construction collaboration platforms provide a continuous flow of information between field and office. In addition, customers will benefit from local support and service from Trimble and its distribution partners.

Navigating challenging environments

Mortenson, a US builder, developer and engineering services provider headquartered in Minneapolis, is one of the first customers to leverage the competitive advantages of this new technology combination. Mortenson has a strong history of Lean innovation and project technology expertise. In this spirit of eliminating jobsite waste and increasing efficiency, the team has been piloting Spot robots with Trimble's SPS986 GNSS solutions to autonomously navigate challenging exterior construction environments such as solar farms to continuously document existing site conditions. An automated and repeatable approach to field data capture can provide Mortenson with real-time awareness of project status, helping to accelerate project delivery. Through Trimble's Early Experience Program, contractors such as Mortenson have advanced access to this technology for the purposes of evaluating its suitability in actual construction projects.

"Robots will play a crucial role in automated construction workflows and can augment the human workforce by handling dirty, dull and dangerous tasks," said Martin Holmgren, general manager, Building Field Solutions at Trimble. "Our experience with early adopters like Mortenson gave us visibility into the transformative potential of an integrated solution that seamlessly marries a world-class robot with construction-specific sensors and workflows. We're excited about this alliance and the potential to bring unprecedented improvements in safety, quality and productivity to our construction customers."

"We believe the combination of Trimble's experience and industry leadership in construction technologies and [Boston Dynamics' Spot](#) can transform the way the industry operates," said Michael Perry, vice president of business development at [Boston Dynamics](#). "The integrated solution will enable any jobsite leader to deploy Spot and Trimble technologies to get an accurate view of construction progress through real-time data collection. With a more comprehensive view of site activity, project managers can take proactive measures to ensure on-time, on-budget and safer project delivery."

The integrated solution is expected to be available by the second quarter 2021 through Boston Dynamics, Trimble and select BuildingPoint and SITECH distribution partners in the US, Canada, the United Kingdom, the European Union, Australia, New Zealand and Japan. Through Trimble's Early Experience program, select customers will have the opportunity to preview development of the solution in advance of general availability.

The alliance with Boston Dynamics enables Trimble to support the Spot robot with integrated scanning, total station and GNSS technologies for the construction market.