CONSTRUCTION SITES NEED PRECISION TO THE NEAREST MILLIMETER. LUCKILY, CONSTRUCTION ROBOTICS CAN FIND PROBLEMS BEFORE THEY BECOME MISTAKES.

Construction sites can look chaotic—and sometimes they are. Glance through the fence surrounding a building site, and you'll see house-size vehicles, half-completed structures, holes in the ground, huge piles of dirt, stacks of piping, and platoons of workers in high-visibility clothing drilling and hammering away.

Tracking progress in this challenging outdoor environment can

digital model. That lack of control increases risk and leads to costly errors in construction, which often needs to be precise to the nearest millimeter. That's why Scaled Robotics has created tools to make project management more effortless by helping to bridge the real and digital worlds.

with LIDAR and cameras that can map a construction site 10 times faster than other existing methods. The bot's reality-capture tech is so precise that it can detect a ceiling corner or door frame even a centimeter off-spec.

All the data the robot captures is uploaded to the cloud, where it is processed automatically and compared to the relevant Building Information Model (BIM) on the project. The data is then displayed in the form of a 3D model replica of the building. Site managers can see and explore the model within a web-based viewer.

That's a considerable uplift in progress-tracking precision. If

While portable, suitcase-size robots remain an essential part of the picture, data is the real story. Scaled Robotics is enabling more ways to collect it; creating better tools for analyzing it; and helping architecture, engineering, and construction

3D models and the real-world challenges of managing a new build.

With social distancing in mind, you might think robots would be perfect for improving site management. Often, they are. But customers have been telling Scaled Robotics Founder Stuart Maggs and his team that robots alone can be limiting. They

daily or ad hoc data capture.

“We realized that we had to broaden our horizons and reduce the friction in capturing data,” Maggs says. “One of the biggest changes we’ve made since the pandemic is integrating the

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About Advance

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