

JTC uses robot to spot building flaws

SINGAPORE'S industrial developer JTC will deploy a robot in a trial to help look for architectural defects in an almost-completed project early next year, with the aim of replacing some aspects of human inspection in the near future.

The 70kg, 1.8m robot, with high-tech cameras and laser scanners, will be used in JTC Space in Gul.

If the trial is a success, JTC will consider talking to the Building and Construction Authority to see if the robot can help meet regulatory needs.

Commercial production may soon follow, with end-2017 estimated as the earliest date, said Koh Chwee, director of JTC's technical services division, yesterday.

"Once we find out that everything (at the trial) turns out to be as planned, then the

next step would be to cover more uses, and see if we can totally replace this aspect of the inspection of spaces with robots," he added.

QuicaBot is the culmination of a year's work for scientists from Nanyang Technological University. It was co-devel-

oped by JTC and local startup CtrlWorks.

The National Research Foundation gave support under a funding initiative.

At the current phase, the cost of the robot is about the annual pay of a human inspector, said Chen I-Ming, director of NTU Robotic Research Centre.

QuicaBot's deployment in Gul will be its first real-life test. It will pair up with a human inspector who can control it via a laptop. Otherwise, the robot can function autonomously.

It will upload three-dimensional data of scans of the building which will be measured against regulatory standards.

This way, it is expected to deliver cost savings in this phase of a building's construction while ensuring consistency and accuracy in inspection.

For example, if it takes two human inspectors a day to complete an inspection, JTC estimates that a human inspector and robot pair will take only half a day, said Mr Koh.

JTC will consider using the robot for commercial and residential buildings.

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