

NTU Singapore scientists develop smart technology for synchronized 3D printing of concrete

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Scientists from Nanyang Technological University, Singapore (NTU Singapore) have developed a technology where two robots can work in unison to 3D-print a concrete structure.

This method of concurrent 3D-printing, known as swarm printing, paves the way for a team of mobile robots to print even bigger structures in future.

The NTU scientist was also behind the Ikea Bot earlier this year where two robots assembled an Ikea chair in 8 min 55s.

Using a specially formulated cement mix suitable for 3-D printing, this new development will allow for unique concrete designs currently not possible with conventional casting.

Currently, 3D-printing of large concrete structures requires huge printers that are larger than the printed objects, which is unfeasible since most construction sites have space constraints.

Having multiple mobile robots that can 3D print in sync means large structures like architectural features and specially-designed facades can be printed anywhere as long as there is enough space for the robots to move around the work site.

The text above is a summary, you can read full article here (https://www.eurekalert.org/pub_releases/2018-10/ntu-nss100218.php).

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