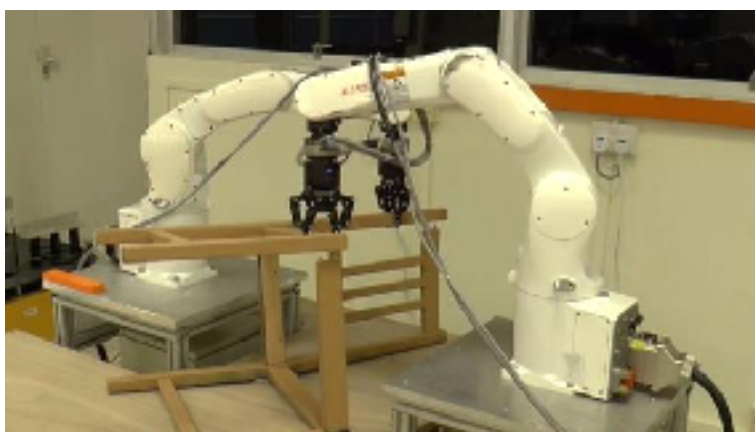


# This robot can assemble IKEA furniture in 20 minutes

- Scientists have taken three years to develop two robotic arms to perform the task
- Researchers in Singapore could develop robot for use in automotive industry

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Scientists have taken three years to develop two robotic arms that can assemble [IKEA](#) flat-pack furniture in just 20 minutes.

The robot took just 20 minutes and 19 seconds to put together a wooden chair from the Swedish furniture retailer. Both arms are equipped with grips and a 3-D camera.

Researchers from Nanyang Technological University in [Singapore](#) developed algorithms to help the robot build the chair. They said the human-quality of robotic hands enables it to perform complex tasks.

"The job of assembly, which may come naturally to humans, has to be broken down into different steps, such as identifying where the different chair parts are, the force

required to grip the parts, and making sure the robotic arms move without colliding into each other," Assistant Professor Pham Quang Cuong said.

"Through considerable engineering effort, we developed algorithms that will enable the robot to take the necessary steps to assemble the chair on its own."

Just like humans, the robot stared at the detached chair pieces prior to starting its task. It then devised a plan using its algorithm to find the quickest route without the robotic arms colliding. Finally, the arms worked together to find out where the holes in each wooden pin were and pressed the parts together.

The researchers are looking to develop the robot so it can learn to assemble furniture through human demonstration or by reading instructions. They are also looking to introduce the artificial intelligence into the automotive and aircraft manufacturing industries.

