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# Watch a Robot Complete Your Most Frustrating Task: Assembling Ikea Furniture

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Every normal human dreads the task of assembling furniture—particularly of the Ikea variety.

But now researchers in Singapore might make human assembly a thing of the past. A team at Nanyang Technological University has successfully trained a robot to build an Ikea chair.



The team programmed the robot to create and execute a plan to put a Stefan chair together. First, the researchers fed the robot with a set of instructions to describe how the pieces should fit with one another. The robot then studied the pieces, devised a plan, and then set to work executing it. In total, it took the robot 20 minutes and 19 seconds to assemble the chair.

The robot's parts were off-the-shelf, though it was equipped with a three-dimensional camera, two robotic arms, grippers, and force detectors to help it undertake the task. Nevertheless, that the robot was comprised of generic items is a first step toward the mass-production of such machines.

While robots have been programmed to build other pieces of Ikea furniture in the past, the successful assembly of the chair is significant, as it is more difficult to put together than other items. The assembly was also more autonomous than previous attempts. However, the ultimate goal is to be able to show the robot an image of the chair and allow it to 'figure out' how to undertake its assembly. Researchers say this achievement is at least five years away.