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A DRONE WON'T JUST DELIVER YOUR IKEA CHAIR – IT WILL ASSEMBLE IT, TOO

In just eight minutes and fifty-five seconds, two robot arms with finger-like prongs can solve the most complex tactical problem known to humankind: assembling IKEA furniture.

Robots have been making cars, appliances, and just about everything else in assembly lines for decades. But when it comes to finding small objects (tiny IKEA nails) and independently figuring out where those small objects need to go (those holes in the furniture that are somehow never the correct shape), like those tiny robots have always had a hard time. After all, when robots make a car, they already know down to the millimeter where each part needs to go.

This shortcoming inspired researchers from the Nanyang Technological University in Singapore to create a robot that can precisely build a complex object—all automatically and without instruction, according to [their paper](#) in *Science Robotics*. When it comes to complex objects, an IKEA chair was the perfect fit.

“At the start, the parts were placed randomly within the environment,” the paper reads. “This is similar to human assembly settings.”

To anyone who dumps all of the parts from the IKEA box onto the floor and hopes for the best, this seems like a pretty realistic way to frame the experiment.

Since the robot arms were built with a brain, they were able to see space in 3D, figure out how much force they need to handle an object without breaking it—and of course, avoid accidentally slapping one another. Using this technology, the arms were able to build a chair in less than nine minutes.

In the future, this technology could be used to build practically anything, without the human time and labor needed to tell the robot how to build it. So in all likelihood—this will mean autonomous factories, not tiny robot assistants building furniture in people’s homes.