

Watch NASA's AI drone race a pro human pilot

It feels like “quadcopter pilot” has only *just* become a job for humans, and already AI is gunning to take it away. Well, it's not able to quite yet, if a recent experiment from NASA's Jet Propulsion Laboratory is anything to go by. The agency has been testing autonomous drones for a while, and last week released the results of a race pitting computers against a professional human pilot. The good news is that the human won – but only after some practice.

In a press release, NASA said the race capped two years of research into autonomous drones. The work was funded by Google, and the test craft – named Batman, Joker, and Nightwing – used the tech giant's Tango technology to map their surroundings in 3D. The drones were of proper racing spec, meaning they were able to fly at speeds of up to 80 mph. (Although on the cramped indoor course that NASA used, they could only go as fast as 40 mph.)

the AI flew without any errors, but the human pilot was more aggressive

NASA's computers took on human pilot Ken Loo, who flies under the moniker FlyingBear, and participates in the international Drone Racing League. According to NASA's report, the AI was initially able to beat Loo, but only until he learned the twists and turns of the course. “This is definitely the densest track I've ever flown,” said Loo. “One of my faults as a pilot is I get tired easily. When I get mentally fatigued, I start to get lost, even if I've flown the course 10 times.”

The AI never got tired, of course, but it did lack the intuition of its human rival, who was able to fly faster and with more freedom. “We pitted our algorithms against a human, who flies a lot more by feel,” NASA task manager Rob Reid of

JPL said in a press statement. “You can actually see that the AI flies the drone smoothly around the course, whereas human pilots tend to accelerate aggressively, so their path is jerkier.”

But does this race (which we spotted via Jack Clark’s AI newsletter) mean drone pilots will all be AI in the future? Well, it depends what they’re used for. Autonomous drones are already used for tasks that require steady and cautious flying, like surveillance and deliveries. Getting AI to race as energetically as humans could take some time, especially as the computers need to account for problems like motion blur, which limit their ability to track their surroundings.

Eventually, though, it seems inevitable that AI will be able to outpace even the slickest human pilots. Not even the newest professions are safe from automation.