

Cassie the running robot achieves Guinness World Record in 100-meter dash in Oregon

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Credit: Agility Robotics

A two-legged robot just made history.

The bipedal droid, who goes by "Cassie" and was created at Oregon State University's company Agility Robotics, just ran the fastest 100 meters by a [bipedal robot](#) to earn an official Guinness World Record, the school announced Tuesday.

While paling in comparison to a Usain Bolt (who holds the human [world record](#) at 9.58 seconds), Cassie's time of 24.73 seconds is impressive considering it's the first robot to use machine learning to control a running gait on outdoor terrain. The feat was executed on Oregon State's Whyte Track and Field Center.

Cassie started the run in a [standing position](#) before going into sprint formation, which shows the robot with its knees bent like an ostrich. The robot operates with no cameras or external sensors, meaning Cassie operates blind.

Cassie, who was created under the direction of Oregon State robotics professor and Agility Robotics chief technology officer Jonathan Hurst, had earlier completed an entire 5K on Oregon State's campus on a single battery charge with a time of 53 minutes.

"We have been building the understanding to achieve this world record over the past several years, running a 5K and also going up and down stairs," graduate student Devin Crowley, who spearheaded the Guinness feat, said in a news release. "Machine learning approaches have long

been used for [pattern recognition](#), such as image recognition, but generating [control behaviors](#) for robots is new and different.

"Cassie has been a platform for pioneering research in robot learning for locomotion. Completing a 5K was about reliability and endurance, which left open the question of, how fast can Cassie run? That led the research team to shift its focus to speed."

Cassie set history by becoming the first robot to sprint but is hardly alone as a bipedal droid. The Boston Dynamics and Mabel team created a [humanoid robot](#) that is known as the world's fastest knee-equipped bipedal bot.

"This may be the first bipedal robot to learn to run, but it won't be the last," Hurst said in the news release. "I believe control approaches like this are going to be a huge part of the future of robotics. The exciting part of this race is the potential. Using learned policies for robot control is a very new field, and this 100-meter dash is showing better performance than other control methods. I think progress is going to accelerate from here."

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