Robot with 1,000 muscles twitches like human while dangling from ceiling

Plans for 279 robots to start

While the Protoclone is a twitching, dangling robotic prototype right now, there’s a lot of tech packed into its body. Protoclone’s sensory system includes four depth cameras in its skull for vision, 70 inertial sensors to track joint positions, and 320 pressure sensors that provide force feedback. This system lets the robot react to visual input and learn by watching humans perform tasks.

As you can probably tell by the video, the current Protoclone prototype is still in an early developmental stage, requiring ceiling suspension for stability. Clone Robotics previously demonstrated components of this technology in 2022 with the release of its robotic hand, which used the same Myofiber muscle system.

[embedded content]

Artificial Muscles Robotic Arm Full Range of Motion + Static Strength Test (V11).

A few months ago, Clone Robotics also showed off a robotic torso powered by the same technology.

[embedded content]

Torso 2 by Clone with Actuated Abdomen.

Other companies’ robots typically use other types of actuators, such as solenoids and electric motors. Clone’s pressure-based muscle system is an interesting approach, though getting Protoclone to stand and balance without the need for suspension or umbilicals may still prove a challenge.

Clone Robotics plans to start its production with 279 units called Clone Alpha, with plans to open preorders later in 2025. The company has not announced pricing for these initial units, but given the engineering challenges still ahead, a functional release any time soon seems optimistic.

https://arstechnica.com/gadgets/2025/02/dangling-twitching-human-robot-with-synthetic-muscles-makes-its-debut/