Meet Digit: The Newest Robot From Agility Robotics

New platform supports diverse applications, including last mile logistics

Albany, OR (Feb 26, 2019) - Agility Robotics today unveiled a new bipedal robot named Digit, which adds an upper torso, arms, sensors, and additional computing power to the successful Cassie robot design. Digit’s four degree-of-freedom (4-DOF) arms greatly extend both the mobility and utility of Digit, as compared to Cassie. “For us,” said Dr. Jonathan Hurst, CTO and co-founder of Agility, “arms are simultaneously a tool for moving through the world - think getting up after a fall, waving your arms for balance, or pushing open a door - while also being useful for manipulating or carrying objects.” These new capabilities are important when moving through complex, human-oriented environments, for tasks such as curb-to-doorstep delivery.

Although still in testing, Digit is strong enough to pick up and stack boxes weighing up to 40 lb (18 kg), as well as durable enough to catch itself during a fall using its arms to decelerate. In addition to the physical changes, the control system for Digit has been overhauled to enable advanced behaviors such as stair climbing and footstep planning, all controlled through a robust API that can be accessed both onboard the robot and via a wireless link. Further, Digit’s torso houses two multi-core CPUs, and a modular payload bay allows a third computer - in a variety of possible form factors - to support additional perception and reinforcement learning capabilities.

Out-of-the-box, Digit will be up and walking within five minutes, even for users who are not legged locomotion control researchers. “Most of our Cassie customers were specifically interested in developing controllers for legged locomotion,” said Dr. Damion Shelton, CEO and co-founder of Agility. “We developed Digit for the much larger audience of users who wish to explore broader applications that are enabled through legged mobility, rather than focusing only on the mobility itself.”

As with Cassie, Digit will come with comprehensive warranty support and post-sales applications engineering assistance. Agility will announce Digit pricing mid-year, with deliveries beginning Q1 2020.

About Agility Robotics, Inc.

Founded in 2015, Agility Robotics manufactures highly capable bipedal robots for diverse markets such as last-mile logistics, telepresence, automated inspection, entertainment, and
academic research. By supplying legged machines that can go anywhere a person can go, Agility provides developers with a dramatic new mobility option to automate applications never before thought possible.

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