

SERVICE ROBOT

With embedded CAN FD network

Pudu Robotics (China) has launched its first legged robot. The Pudu D1 robot is based on proprietary joint modules and a main control board with high computing power, PUDU D1 is the first commercial delivery-quadruped robot in the industry.



The delivery-quadruped Pudu D1 robot comprises company-developed devices connected by means of CAN FD (Source: Pudu Robotics)

"The Pudu D1 addresses the challenge of effectively completing a delivery while traveling diverse terrains. As it becomes the robot of choice for use in an increasing number of complex terrain scenarios, combined with other Pudu Robotics delivery solutions, all-terrain coverage of robot delivery will be quickly achieved, and a closed loop delivery chain may be formed," said Felix Zhang, founder and CEO (central executive officer) of robot company.

The service robot comes equipped with proprietary joint modules as its core power sources, featuring hollow wiring and ability to remember the output absolute position even after there has been a power interruption. Furthermore, the robot adopts the CAN FD communication protocol running at 5 Mbit/s. The robot's joint module includes a 19-bit encoder with unprecedented position feedback accuracy.

The brain of the quadruped robot, the main control board is equipped with a 16-core CPU (central processing unit), AI (artificial intelligence) computing power, and interface resources. With a control scheme for force control, the robot can adapt to different terrains and maintain its balance while moving even when being buffeted by external forces, explained the company. With the auto-levelling delivery box that constantly maintains a horizontal position, the product is expected to become a delivery leader when it comes to operating in complex environments, stated the Chinese provider. The product is a quadruped robot

with navigation and obstacle avoidance ability.

"As we enter the next stage of the sci-tech revolution and industrial transformation, we are accelerating towards the era of intelligence, with robots redefining human productivity and offering up new opportunities for quality of life. Pudu Robotics strives to be at the forefront of the robotics business, exceeding consumer expectations by developing more really helpful robots for the industry and society as a whole," added Zhang.

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