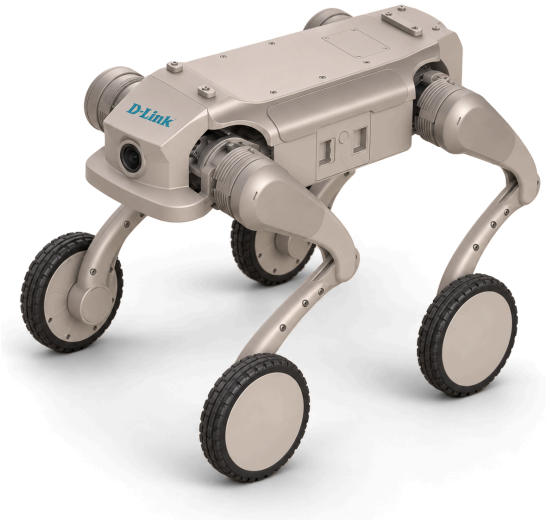
Product Highlights

Wheel-Leg Speed
Four legs with wheels give a top speed of 3.7 m/s on flat ground and legged movement on stairs, slopes and rough terrain

AI Motion Control
A motion controller based on reinforcement learning keeps the robot stable on stairs and debris, with self-balancing and rollover prevention

Built to Expand
Standard expansion ports let you add payloads of up to 5 kg, and the robot supports secondary development



DLR D-Volt Wheel

Wheel-Legged Quadruped Robot

Features

Mobility

- Maximum speed of 3.7 m/s
- Climbs stairs of 16 cm continuously
- Walks slopes of 30° as standard, 40° maximum
- 12 degrees of freedom

Endurance

- 1 to 2 hours of operation with load
- Operating range of 9 ± 1 km
- Replaceable battery, approximately 1 hour to charge from 10% to 90%

Compact and Rugged

- IP54 protection rating
- 22 kg including the battery
- Folds down to a height of 165 mm for transport

Expansion and Control

- Gigabit Ethernet, USB, SBUS, UART and power ports
- 5 kg rated payload
- Supports secondary development
- Handheld remote controller with a control app
- FPV camera

The DLR D-Volt Wheel from D-Link Robotics is an industrial-grade, small-sized quadruped robot with a compact, lightweight wheel-leg body and AI motion control based on reinforcement learning. This combination gives it high passability in narrow spaces together with a high transit speed. It moves quickly through corridors and between equipment on a security patrol, and it crosses gravel and shrubs in the field. Its expansion ports and support for secondary development make it a general-purpose mobile platform for facility teams, integrators and researchers.

Wheel-Leg Design

The wheel-leg configuration delivers the power output for fast running on flat ground, and the legs take over on stairs and obstacles. The joint system has a peak power density of 2 kW/kg and integrated intelligent motion control. It supports heavy payloads and long missions with stable, reliable operation.

Intelligent Motion Control

The reinforcement learning algorithm is trained on tens of millions of data points and is combined with advanced motion control technology. The robot adapts to complex terrain such as stairs and debris. Self-balancing and rollover prevention give it strong resistance to disturbance during a mission.

Expansion

Standardized expansion interfaces support secondary development and customization. You can add functions such as autonomous navigation and fit different payloads to match the application.

Applications

Security patrolling, facility and equipment inspection, and research and education.

Technical Specifications

Physical	
Standing Dimensions (L x W x H)	630 x 430 x 485 mm
Folded Dimensions (L x W x H)	690 x 540 x 165 mm
Weight	22 kg (including battery)
Degrees of Freedom	12
Wheels	Hub motors with six-inch solid tires
Protection Rating	IP54
Operating Temperature	0 to 40 °C
Performance	
Maximum Speed	3.7 m/s
Rated Payload	5 kg
Continuous Stair Climbing Height	16 cm
Slope Capability	30° in a standard environment, 40° maximum
Joint Peak Power Density	2 kW/kg
Power	
Battery	Replaceable, rated capacity 4.6 Ah, voltage 43.2 V
Charging Time	Approximately 1 hour (10% to 90%)
Operating Time	1 to 2 hours with load
Operating Range	9 ± 1 km
Interfaces and Control	
Expansion Interfaces	• 1 x Ethernet port (RJ45, 1000 Mbps) • 2 x USB Type-A port • 2 x power port • 1 x SBUS port • 1 x UART port
Camera	FPV camera
Control	Handheld remote controller with control app
Development	Supports secondary development
Ordering Information	
DLR D-Volt Wheel	Wheel-Legged Quadruped Robot

The parameters are based on laboratory test data. Actual performance can change with the operating environment and the pattern of use. Images are illustrative and for creative purposes only. The actual product can differ in appearance. Specifications are subject to change without notice. D-Link is a registered trademark of D-Link Corporation and its overseas subsidiaries. All other trademarks belong to their respective owners. ©2026 D-Link Corporation. All rights reserved. E&OE.