GATEIN TECHNOLOGY
جيت ان تكنولوجي

PRODUCT PRESENTATION · FIRE RESCUE SOLUTIONS

Quadruped Robot Fire Rescue

Unitree B2 Fire Rescue Solutions

Overcome hazards and protect the ones who march against the tide: two B2 editions for detection and water-cannon fire suppression.

Presented by GateIn Technology · Exclusive Unitree partner in Egypt



About Unitree Robotics

The manufacturer: a civilian robotics company focused on R&D, production and sales of quadruped and humanoid robots and six-axis manipulators. It has appeared at CCTV Spring Festival Galas, the Winter Games 2022 opening ceremony, the 2023 Super Bowl and the 19th Asian Games.

- 2013 · pioneered a low-cost, high-performance quadruped robot solution
- 2016 · world's first commercial release of high-performance quadruped robots
- Since 2017 · industry application pioneer for quadruped robotics
- 2021 · first quadruped robot company worldwide with IP68 certification
- Consistently ranked global sales leader in its category
- Among the first in China in national disaster relief and emergency drills



VISION

Technology drives world progress.

CULTURE

Ultimate insight, self-achievement, cooperation and mutual benefits.

B2 Detection Edition Product parameters



All-terrain performance

Clears 40 cm obstacles, stairs and 40° inclines; moves easily over rubble, gravel and grass; omnidirectional movement with minimal ground contact preserves the scene and reduces secondary accidents.

Weight	Approx. 90 kg
Payload capacity	Approx. 25 kg
Max speed	3.5 m/s
Battery life	Range > 15 km · runtime > 3.6 h (varies by configuration)
Protection rating	IP66
Communication	Ad hoc mesh network, relay expansion support
Removable battery	Yes
Material	Full composite-metal body: wear resistant, strong, fireproof
Rollover function	Manual remote-controlled recovery, one-touch rollover
Software platform	Proprietary human-robot interaction system

Detection Edition Equipped modules

360° panoramic camera

Clear video in strong light and low light (backlit or shadow), with real-time transmission of on-site scenes.

Dual-optical PTZ system

Pan-tilt-zoom that penetrates smoke to track heat sources and maps the temperature of people and surroundings.

Gas detection sensor

Identifies and monitors CO, CO_2, O_2, NOx, H_2S and flammable gases, with real-time concentration alerts.

Ad hoc mesh network

Flexible networking for reliable coverage in complex environments; dual-network mode limits single-signal interference.

Handheld remote control terminal

High-definition, sunlight-readable display; integrates with command centres for coordinated emergency response.

3D laser scanner · transport case

3D laser scanning, plus a rapid-deployment transport case for quick setup.

B2 Water Cannon Edition Product parameters



Walking speed	2.5 m/s
Wading depth	1 m
Step climbing	> 25 cm
Water cannon flow	Adjustable: 20, 30 or 40 L/s (3 levels)
Spray modes	Straight and foggy
Max range	60 m
Max spray angle	120°
Horizontal movement	±20°
Pitch angle	5°–85° (with body compensation)
Water intake system	DN65 / DN80 inlet pipe; remote hose release enabled
Operator terminal	Sunlight-readable display, multi-channel signal display

Water Cannon Edition Equipped modules

Foam nozzle

Built for flammable and combustible liquid fires; suppresses vaporisation and pyrolysis to stop the fire spreading.

Dual-optical camera

Smoke-penetrating thermal imaging for heat-source tracking and temperature mapping, with a self-cleaning lens.

Self-cooling system

High-temperature resistant, so the robot can keep working in extreme heat.

Gas detection sensor

Monitors CO, CO_2, O_2, NOx, H_2S and flammable gases, with real-time concentration alerts.

Ad hoc mesh network

Flexible networking for complex environments; dual-network mode limits interference.

Handheld terminal · hose carriage

Sunlight-readable remote terminal linked to command centres, plus a hose carriage system.

Comply with all local safety regulations.

Smart fire relief Process 1–3



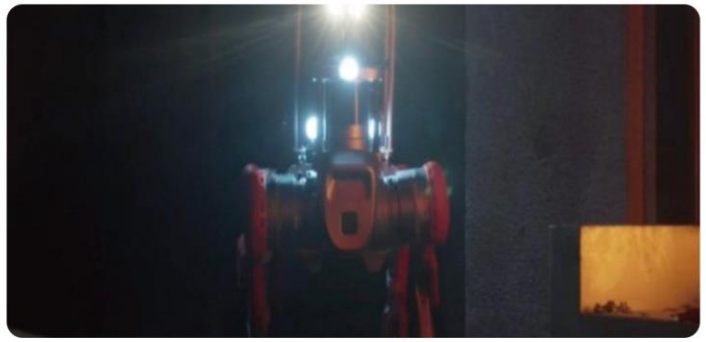
01 5G + mesh network navigation

Beyond-visual-line-of-sight control: remote route reconnaissance and hazard spotting, first in high-risk zones.



02 Thermal imaging & gas detection

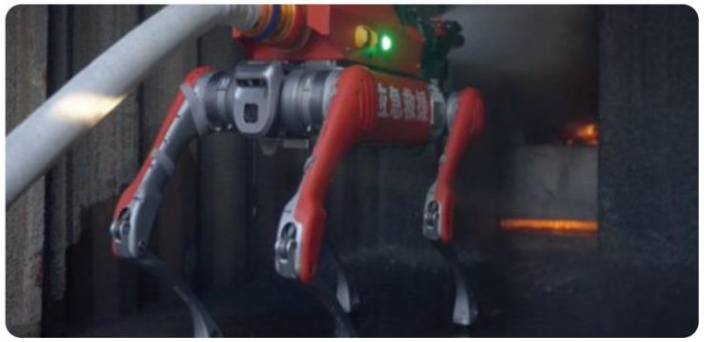
Life detection locates trapped people and fire sources; real-time gas analytics guide on-site safety decisions.



03 3D radar mapping

Instant scene modelling builds command-ready maps that highlight safe routes and enable autonomous logistics.

Smart fire relief Process 4–6



04 Fire suppression & hose deployment

Efficient water or retardant delivery in confined spaces such as high-rises; self-cooling mode works in extreme heat.



05 Logistics & rescue coordination

Transports critical supplies, autonomously or with firefighters, and syncs with wider dispatch operations.



06 Voice-guided evacuation

Scans evacuation paths for hazards and guides people out: a lifeline during emergencies.

Management Platform

Unitree Firefighting Quadruped Robot Visualization Platform with real-time monitoring modules.



System backend support

- Command & control centre
- Unified multimedia communication platform: comm., video, GIS, live-stream, drone-info and airport services
- Multi-network connectivity: satellite, 4G/5G and MESH-AP
- Integrated data hub

Disaster site rescue operations

- Remote command support from emergency firefighting operators
- Field deployment: on-site command, breach & entry teams and robot operators
- Mobile charging station and forward command post

Data links: audio stream · environment data · video stream · track path data · operating control

User demonstrations Case studies

#01

Official deployment in Qingdao Fire & Rescue



Qingdao Fire and Rescue Detachment integrated two quadruped robots into its emergency response unit, improving rescue efficiency in complex environments.

B2 × 2 units · 360° camera, dual-optical PTZ, self-organizing mesh, multi-gas array, industrial controller

#02

2024 Jiangxi large-scale commercial complex drill



A simulated grease-duct fire in an underground mall store: a robotic canine climbed the escalator for multi-level detection and real-time command support.

B2 × 1 unit · 360° camera, dual-optical PTZ, P2P communication, multi-gas array, industrial controller

#03 Integrated forest fire rescue drill

At a forest firefighting exercise in Ningbo, robotic firefighting canines handled fire reconnaissance, heat-source localisation and post-fire monitoring to prevent rekindling.





Key benefits

Higher operational efficiency · improved firefighter safety · fire management from active suppression to post-disaster oversight.

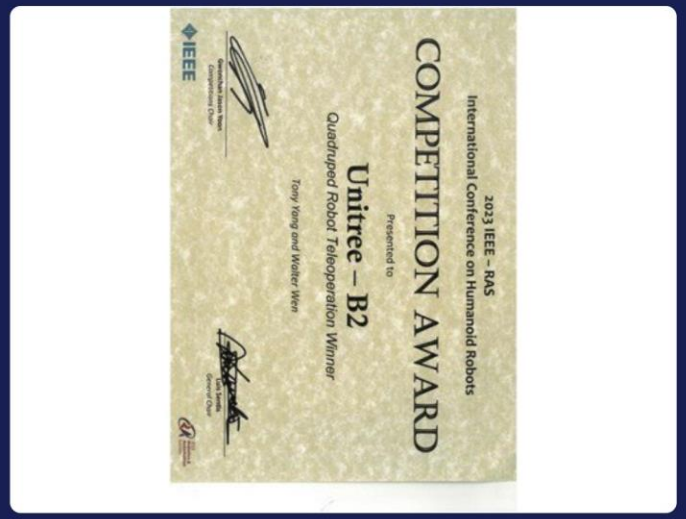
Configuration

B2 reconnaissance × 1: 360° camera, dual-optical PTZ, P2P communication, industrial controller. B2 suppression × 1: fire suppression system, dual-optical PTZ, P2P communication, industrial controller.

Patrol → Inspection → Prevention → Extinguishment

Honor Certificates

Industry recognition for Unitree and the B2 platform.



Competition Award — Unitree B2



Council member, China Industrial Design Association AI branch



50 Most Innovative Companies in China (MIC50)

GateIn One accountable partner

We don't just ship the B2 fire rescue robots. GateIn designs, supplies, installs, integrates and supports Unitree robots for universities, schools, government and industry, from the first plan to long-term support.

+120
ROBOTS SUPPLIED IN EGYPT
Industrial, service and educational

91
LABORATORIES
Across 45 institutions

+30
STRATEGIC & GLOBAL PARTNERS

5
YEARS OF DELIVERY
Since 2021

Design | Sourcing | Installation | Integration | Training | Long-term Support

An integrator, not a vendor.

Exclusive Unitree partner for Egypt

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Let’s plan your B2 fire rescue deployment

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