



The image depicts three police officers in full tactical gear, including helmets and body armor, standing in a dark, industrial environment. They are holding firearms and aiming them forward. In the foreground, two quadruped robots are positioned. The robot on the right is more prominent, featuring a camera and sensor array on its head, and the word 'POLICE' is visible on its side. The robot on the left is partially obscured by the text. The scene is dimly lit, with light reflecting off the robots' surfaces and the officers' gear.

Quadruped Robot Public Security Solution

Table of Content

01. Introduction

02. Application Scenario

03. Public Security Solution

04. Function module Specification

02. Application Scenario



Application Scenario



Counter Terrorism

Specbotics-30 police robot is equipped with a capture net launcher, tear gas launcher, stun grenade launcher, and smoke grenade launcher. During the process of handling anti-terrorism and riot prevention special tasks by police officers, it can assist in aiming at dangerous individuals to restrict their actions, thereby assisting police officers in quickly and safely taking action to stop and control dangerous individuals. This comprehensively strengthens anti-terrorism security prevention measures and improves the ability to handle emergencies.



Criminal Investigation

Specbotics-30 police robot is equipped with a dual-spectrum triaxial gimbal, sound pickup; it can quickly traverse rugged terrain and carry out sound and light information; it provides information for on-site command and task scheduling, and complete remoted monitoring and recording tasks.

Application Scenario



Patrol Security

Specbotics-30 police robot is equipped with a capture net launcher, 3 in 1 launcher (tear gas, grenade shock bomb, smoke bomb launcher), during the process of police officers participating in anti-terrorism and riot prevention special service tasks, the robot aiming to restrict the actions of high-threat individual, and assist police officers to quickly and safely control them, which comprehensively strengthen anti-terrorism security prevention measures, and improve the ability to deal with sudden terrorist incidents.



Explosion Ordnance Disposal

Specbotics-30 police robot can be equipped with other devices, such as a collaborative robotic arm, toxic and harmful gas sensors; it can enter dark and smoky environments to carry out bomb disposal work.

03. Public Security Solution

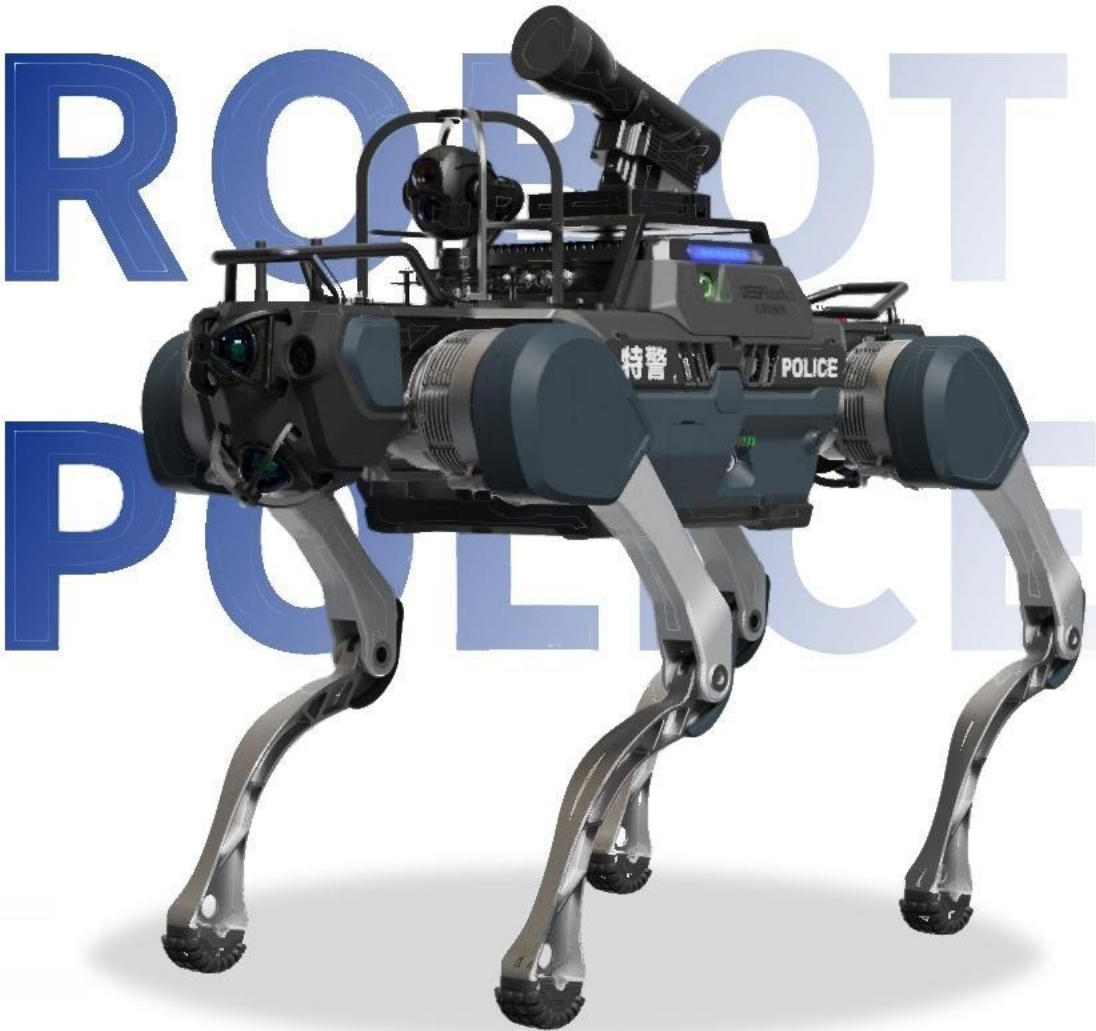


Police Large Quadruped Robot Dog

Parameter

Weight:	56kg(Battery included)
Standing Size:	1000×470×585(mm)
Ingress Protection:	IP67
Temperature:	-20℃~55℃
Load:	20kg
Endurance	2.5-4h
Battery Capacity:	≥22.4Ah
Speed:	1.7m/s
Max.speed:	4.95m/s
Communication Interface:	Ethernet;WiFi;USB
Output Power Supply:	5V/12V/24V/72V(BAT)
Locomoti on:	Capable of climbing stairs with a step height 22~25cm; multiple motion gaits;can climb slopes≥30° ,stairs≥45°

- *Protection Mode:Equipped with a one-key hardemergencystop button at the rear; thecontrol handleis equipped with a one-key soft emergency stop protection; supports fall protection, low voltage alarm, and over-temperature alarm.
- *Integrated Joint Module, consisting of high-torque density motors, high-precision reducers, absolute encoders, and temperature sensors.
- *Equipped with various motion gaits: running, jumping, walking, stairs, slopes, crawling, pivot turns.
- *Intelligent Functions: omni-directional obstacle avoidance, staircase perception, multi-flor navigation, and autonomous charging without mapping.
- *Utilizes advanced ful-force control algorithms, without the need for foot pressure sensors, resulting in low maintenance costs.



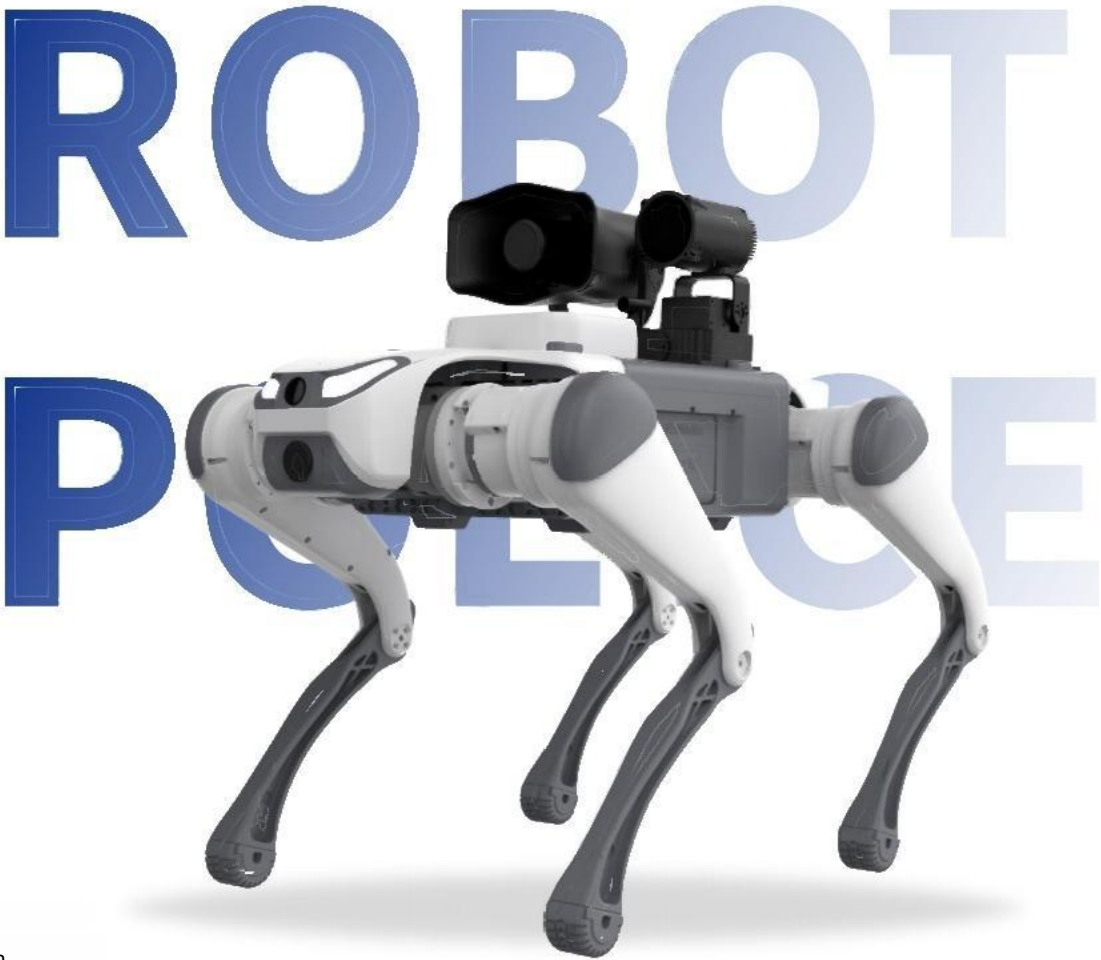
Police Small Quadruped Robot Dog

Parameter

Weight:	12.2kg(Battery included)
Mileage:	4km
Standing Size:	610×370×436(mm)
Load:	7.5kg
Endurance:	1.5-2h
Charging Duration:	40min~1h
Battery Capacity:	≥4.4Ah
Speed:	1.0m/s
Max.speed:	2.5m/s
Communication Interface:	Ethernet/WiFi
Output Power Supply:	5V/12V/24V

Locomotion: Capable of climbing stairs with a step height 15cm;
multiple motion gaits; can climb slopes≥40°

- *Integrated Joint Module,composed of high-torque density motors,high-precision reducers,absolute encoders,and temperature sensors.
- *Provides various display movements, including forward jumps, upward jumps, twisting jumps, moonwalk, etc.Jumping distance can reach up to 50cm, and jumping height can reach up to 30cm.
- *Supports walking on complex surfaces such as concrete and gravel roads.
- *Utilizes advanced full-force control algorithms, without the need for foot pressure sensors, resulting in low maintenance costs.



Public Security Solution



Counter
Terrorism



Dual-Spectrum TriaxialGimbal Capture Net Launcher 38MM Six-Shot Launcher 2-in-1 Searchlight Burst Light



Industrial-grade Ground Control Solution



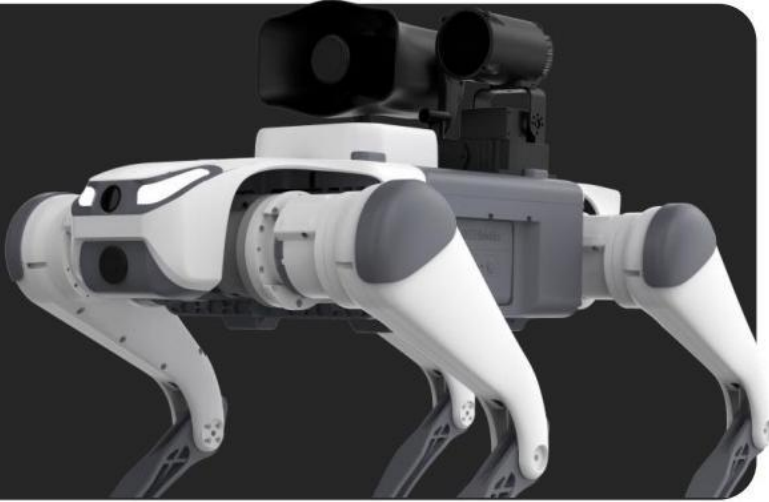
Criminal
Investigation



Dual-Spectrum Triaxial Gimbal Strobe/Searchlight Speaker/ Microphone (4-in-1) Industrial-grade Ground Control Solution

Public Security Solution

Patrol Security



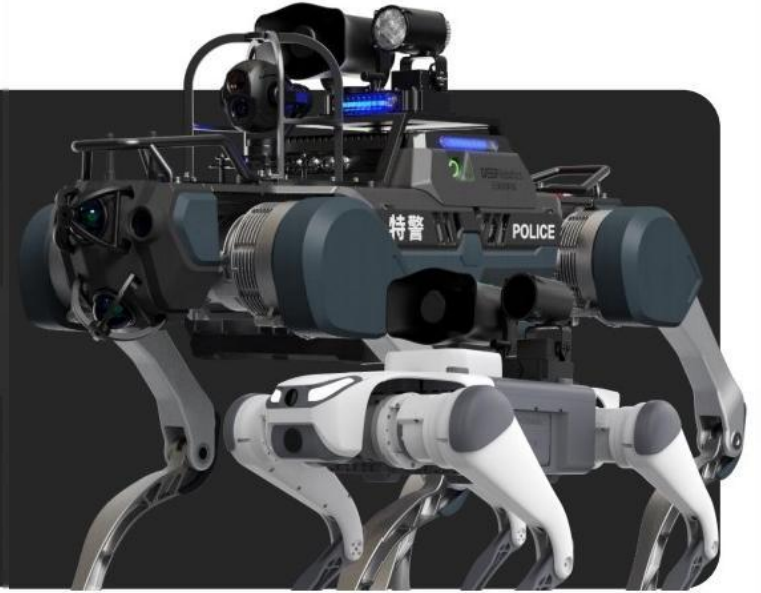
Strobe/Searchlight Speaker/
Microphone (4-in-1)

2-in-1 Searchlight
Burst Light(optional)

Searchlight

Speaker
(optional)

Explosive Ordnance Disposal



Six-axis Robotic Arm

Industrial-grade Ground
Control Solution

Public Security Solution

Customizable for Particular Needs

Police Quadruped Robot



Communication Location

- 4G/5G Modules
- GPS/RTK
- More ...

- Long range
- In&outdoor locationg assit
- Others

Sensation

- Pi-spectrum Cam
- Gas Sensor
- Humidity Sensor
- Pick-up
- More ...

- Temperature detection
- Gas concentration detection
- Other abnormal on site recognitions
- More....

Operation

- Robot Arm
- Telescoping Mech
- Organizer
- More ...

- Max-load carry
- Probing from difficult way
- Switch operation
- Other actuation operations

Collaboration

- Door/Ladder Control
- More ...

- Collaborative command needs for different scenarios

Function Module Specification

Video Image

Dual-Spectrum Triaxial Gimbal

Three-axis stabilized gimbal with built-in shockabsorption;Providing software for integrated ground connections,including video and control networkIP, dualHDMI out.

Pitch AngleRange:	+135°to-45°
HeadingAngle Range:	+240to-240° .
FocalLength Range:	4.9±10%to49±10mm.
Image Storage Formats	JPEGformat;variouspixel options available
Video Storage Formats:	H.264 format;1080Pvideo streaming
StorageCapacity:	32G-128G(FAT32 format)
Weight:	430±20 grams
Product Dimensions	L118.2mm×W80.5mm×H140mm
Power Supply Voltage:	12V-26.2V
Power consumption:	Dynamic7.5W



Industrial-grade Ground Control Solution

The MK32 is equipped with a 7-inch high-definition high-brightness display screen with 1800 nits brightness IPS LCD screen that remains visibleeven in direct sunlight

It is equipped with the latest Hyper processor and running on the Android embeddedsystem;

Utilizing advanced SDRtechnologyanda super protocolstack; Supporting 1080P H.264 high-definition digital image transmission,with a maximum transmission distance of 10km,providing clearer images,lower latency,and longertransmissiondistances;

With IP67-rated waterproof,dustproof,and shockproof materials and structure,it offers an ultimate tactile experience while being suitable for outdoor harshenvironments;

Equippedwith a high-energy-density lithium-ion battery,supporting 18W fast charging,enabling upto 8hours of continuousoperation on afull charge.



Strike-class

38MM Six-Shot Launcher

Product Dimensions:	139mm x111mmx226mm
ProductWeight	1.2kg
Control Method:	Integrated applicationcontrol
System Power	≤30W
OperatingTemperature:	-20℃to 60℃
Protective Rating:	IP43
ControlDistance	Consistent with robot dog communication distance
Status Feedback:	Real-timefeedbackofeachchannel'sstatus
Supported Ammunition:	38mm electricssmoke grenades,tear gas,flash-banggrenades,etc.
Installation Method:	Fixed/Quick-detach structure
ShockAbsorption Method:	Independentspring-builtshockabsorption
Safety Mode:	Devicelock/load detection/power-on detection/magazine safetyindicator
Pitch Mechanism:	Manuallyadjustable,angle from 0°to 90°



Capture Net Launcher

Net Gun Area:	3mx3m
LaunchAngle:	Upwards 20°
Auxiliary aiming System:	Infrared lasertargeting high-definition camera
Effective Range:	8-10m
Weight:	1.45kg
Product Dimensions:	248mm*73mm*138mm
Power	≤20w
Power Supply:	Robot powered
MountingMethod:	Plug-and-playdesign for quick disassembly
Trigger Method:	On-boardelectricexcitation 12g/16gpneumatic-hydraulicpower
ControlMethod:	Integratedapplication control,quick-changere-loadablefor continuousfiring



Function Module Specification

Broadcasting

Speaker(Optional)

Interface Type:	Quick-detachinterface
Product Dimensions	174mm x143mmx90mm
Maximum Decibel Level	130dB
MaximumPower:	35W
EffectiveBroadcasting Range:	500 meters
ControlDistance:	Consistentwith drone communication distance
Product Weight:	480g±5g
AngleAdjustment	Yes
Pitch Angle	0°to 90°
Operating Temperature:	-20℃ to 40℃
Communication Method:	Remotectlrollink
Announcement Method:	Real-time announcement/TTS(Text-to-Speech)conversion/ Audio file playback/Alarm/Loop playback/Male-female voice switching/Volumeadjustment
Audio File Formats:	MP3/WMA/FLAC/WAV



Strobe/SearchlightSpeaker/Microphone(4-in-1)

Operating Voltage	12-60V
Weight:	690g±10g
Brightness:	3000lm
BeamAngle:	Adjustable
Power:Lighting:	30W,Speaker:30W,Red-Blue:10W
Effective Sound Transmission Distance:	500 meters
Maximum Sound Transmission Distance:	800 meters
Maximum SoundPressure:	130dB
Dimensions:	270mmx143mmx133mm
Operating Temperature:	-10℃to 60℃
Functions:	Real-timeannouncement,recording upload,audio playback, text-to-speech,flashinglighting,constantlighting,lighting brightness adjustment,red-blueflashing,red-blueflashing modeswitching



Lighting Category

2-in-1 Searchlight Burst Light (Optional)

Operating Voltage:	12-17.6V
Weight:	130g±10g
Power:	40W
Dimensions:	65mmx142mmx44mm
Operating Temperature:	-20℃to 60℃
Luminous Flux:	4000lm
Wide-Angle:	15°
Function Modes:	Constant Brightness:30W, Flashing:30W
Gimbal Rotation Range:	Pitch:-90°to +30
GimbalAngle Adjustment,BrightnessAdjustment,Red-BlueFlashing,Mode Switching	



Searchlight

Electrical Interface:	Quick-detachinterface
Weight:	1200±10g
Dimensions:	158mmx156.4mmx213mm
FOV(Field of View):	16.7°
Luminous Flux:	Extremely Bright:30,000lm±3%(Power:300W), Constant Brightness:20,000lm±3%(200W)
LuminousEfficacy:	100lm/W(Power:300W)
Beam Diameter:	15m(Distance:50M),30m(Distance:100M)
Illumination Area:	176m²(Distance:50M),706m²(Distance:100M)
Function Modes:	ConstantBrightness,Extremely Bright,Flashing
GimbalRotationAngle:	Pitch:-110°to+45°,Horizontal:±175°
GimbalDesign Range:	Pitch:-207°to+90°,Horizontal:±175°,Roll:±90°
OperatingTemperature:	-10℃to 90℃

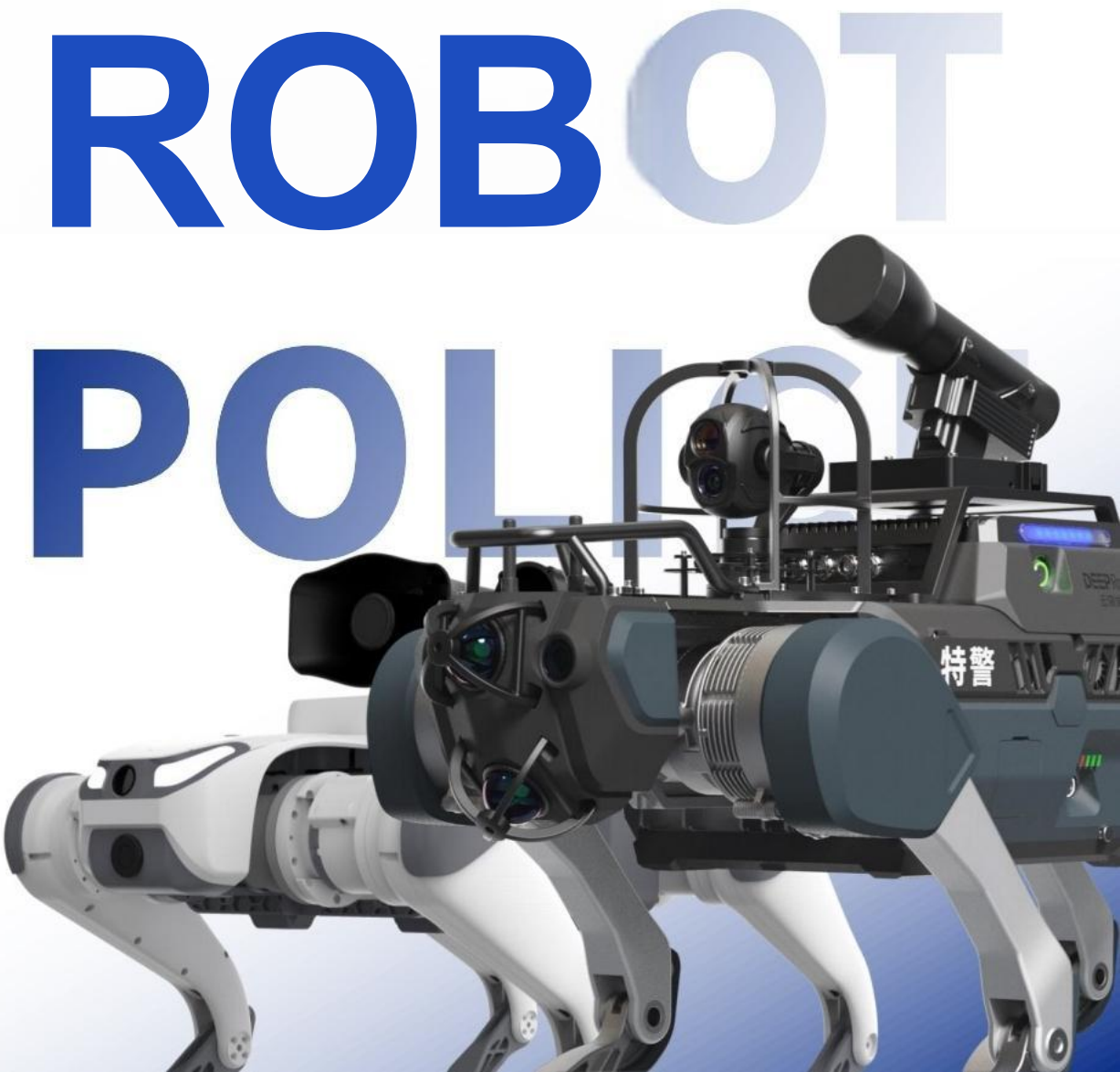


Function Module Specification

Other

Six-axis Robotic Arm

Degrees ofFreedom:	6
Body Weight:	7.2kg
EffectiveWorking Radius:	610mm
Payload:	5kg
RepeatPositioning Accuracy:	±0.05 mm
Maximum Joint Motion Range:	J1:±180°J2:±130°J3:±135° J4:±180°J5:±128°J6:±360°
MaximumJoint Speed:	J1-J2:180/s,J3-J6:225°/s
Communication Interfaces:	WiFi/Ethernet/Bluetooth/USBserial port/RS485
SupplyVoltage:	DC24V
TotalPower Consumption:	≤100w
IngressProtection:	IP54

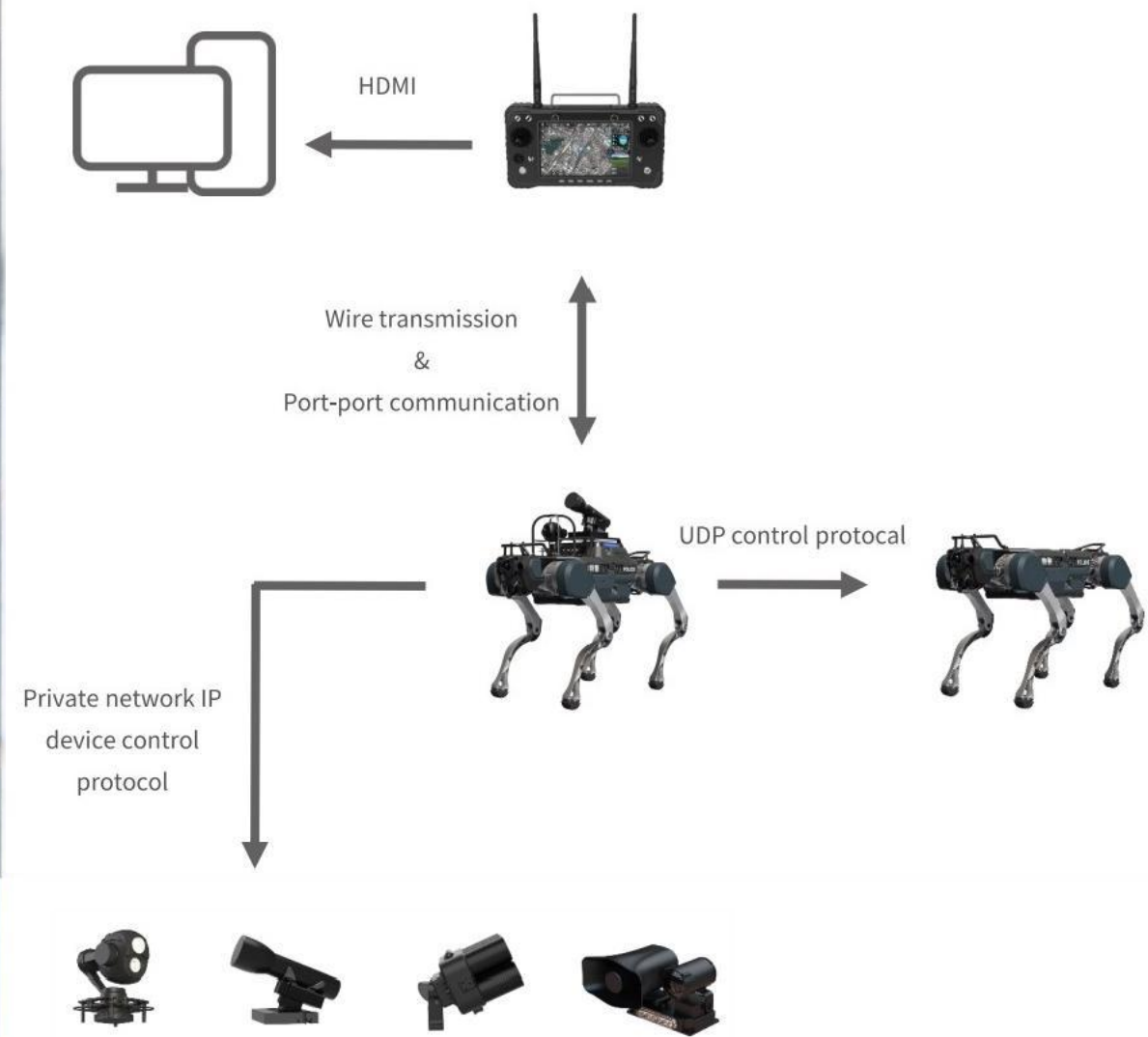


Long-range Handheld Ground Station

- ① The MK32 is equipped with the latest Hyper processor,running on the Android embedded system.It utilizes advanced SDR technology and a super protocol stackto provide clearer images,lower latency,and longer transmission distances,making it suitable for applications in drones,robots,industrial control devices,and more.
- ② Supporting a wide range of interfaces including HDMI,Ethernet,sensor interface,dual-channel serial pass-through,SBUS,the MK32 is versatile for aerial photography,FPV security,firefighting,power industry,detection, border defense,and more.
- ③ Utilizing IP67-rated waterproof,dustproof,and shockproof materials and structure,e nsuring not **only a good** tactile experience but also durability.
- ④ Utilizing a7-inch high-definition,high-brightness display screen with 1800 nits brightnessIPSLCD screen that remains visible even in direct sunlight;Supporting 1080PHD digital video transmission.The dual-antenna signals complement each other,providing strong and long-distance signal transmission.Combined with algorithm controland asynchronous frequency hopping algorithm,significantly enhancing weaksignal communication capability.The transmission distance can reach up to 5-10km at maximum.
- ⑤ Equipped with a high-energy-density lithium-ion battery,supporting 18W fast charging,enabling upto 8hours of continuous operation on a full charge.
- ⑥ Supports a rich set ofinterfaces including HDMI,Ethernet port,sensor interface,dual-serialport passthrough, SBUS,etc.Additionally,itis compatible with a wide range of cameras,gimbals,and payloads.Provides development kits,SDKs,and technical support,with features suchas video stabilization,compatibility with mainstream flight controllers ground stations,and support for sharing wireless RTSPvideo **streams via QGC**.
- ⑦ The use of weather-resistant silicone,frosted rubber,stainless steel,aerospace aluminum alloy givesit an ultimate touch while meeting the harsh conditions for outdoor use of robots.Dust-proof and waterproof protection measures are applied to the fuselage,control switches,and various external interfaces to ensure stable and smooth operation of the equipment in harsh environments.
- ⑧ Rich ground interfaces,coach PPMinput+output,RJ45 network interface,long-distance connection to the intranet,Type-C Android high-speed USBinterface,OTGinterface for connecting USBflash drives,network cards, expanding TF cardslots,etc.
- ⑨ Independent2-dimensional control sticks make device control responsive and intuitive.

Function Module Framework

Zealquest AI



Due to product updates, contents may change. Please consult for final confirmation.