

# ZH580-AIBO

## Multi-Spectral Inspection Robot Dog



**ZH580-AIBO** is a robot dog equipped with a multi-spectral imager for power inspection. The instrument integrates UV, IR, HD VIS light and laser rangefinder, which can carry out inspection tests of corona, temperature and visible light meter on the charged equipment. ZH580-AIBO combined with intelligent inspection and self-management system. With path planning function, according to the task arrangement of independent inspection and real-time sensing data back to the management platform for identification, diagnosis, solve the traditional inspection of poor reliability, low operation and maintenance efficiency and other problems.

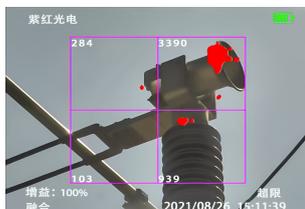
### Technical Specifications

#### Multi-spectral Instrument

- High sensitivity UV detector
- High accuracy fusion, support 4 x fusion zoom test
- 1280×720 UV fusion HD video stream
- 640×480 auto-focus of infrared camera
- 1920 x 1080 visible, 30x optical zoom, 18x digital zoom
- 40m TOF laser distance measurement
- Threshold alarm, automatic capture
- 2.4G high frequency radio communication, support 4G

#### Robot Dog

- SLAM algorithm for 3D radar, create terrain contour maps
- Multiple positioning methods for visual management
- Multiple open source external interfaces and card slots
- Strong environmental adaptability, air-cooling system
- Lidar location building for target following
- Adapts to 20 cm high steps and 35 degree steep slopes
- Resistance to external disturbance of balance control
- IP68 with high sensitivity dynamic obstacle avoidance system



## Specifications

### UV properties

Spectral Range	240~280nm
Discharge Sensitivity	1Pc/10m
UV Sensitivity	$3 \times 10^{-18}$ watt/cm
F.O.V	12.6° × 7.2° & 5° × 3.75°
Focus	Auto
Test Distance	1.5m- ∞
Pixel	1280×720

### IR properties

Pixel	640×480
Wavelength Range	7 ~ 14.5 μm
F.O.V	0.28 mrad
Pixel	640×480
Focus	Auto/Manual
Temp Range	-20°C ~650°C
Temp Accuracy	±2°C/±2%

### VIS properties

Pixel	1920×1080
Focus	Auto/Manual
VIS Sensitivity	0.1Lux
Optical Zoom	30×
Digital Zoom	20×
Dynamic Detection	Support

### Perception System

Perception Controller	Jetson Xavier NX*3
Depth Camera	Equipped (5 pairs)

### Communication

Wireless	5G communication
Transfer	Beyond visual remote control and picture transmission

### Motion Wading

Walking speed	1.8m/s
Positioning Accuracy	≤8cm
Climbing Capacity	35°
Step Capacity	≥20cm
Load Capacity	≥13kg

### IP Rating

IP of Whole Machine	IP68
Anti-drop Collision	Support

### Physical

Maximum Endurance	2.5-4.5h
Battery Capacity	13000mAh
Weight	19±1kg