



**SpartanLync**  
TECHNOLOGIES

# Patrol and Inspection Robot

## For Mining and Industrial Applications

Designed for oil, gas, and chemical scenarios, this robot frees frontline operators from on-site inspections on tanks, pipelines and synthesizers within hazardous and explosive working areas.



**3D LiDAR  
Visual Navigation**



**Leaking & Dripping  
Quant. Analysis**



**Auto-Diagnosis  
Self Charge**



**Obstacle Avoidance  
Detection & Rerouting**



**Optical + Acoustic  
Integrated Gas Detection**

## Product Features



### Highest Ex-Proof for Zone 1 Use

Certified IIC T6 GB (equivalent to Zone 1 in IECEx standards), this robot also has a protection grade of IP66, corresponding fully to the requirements of explosive & corrosive environment.



### Omnidirectional Passability

Capable of omnidirectional maneuvers, this robot is equipped with a combination of LiDAR, depth camera and ultrasonic sensors, ensuring precise arrival at preset interest spots.



### Human Machine Interaction in O&M

This solution identifies defective spots in equipment and provides guidance in repair process with 2-way voice interaction system, connecting the back-end expertise resource with on-site workers.



### Multi-Eyed Expandability

This robot carries a 4-eyed PTZ of 2560P HD optical and thermal imager by default. Another 2 optional slots may house CH4 detector, acoustic imager and other sensor selections, improving the accuracy in identifying minor gas leaks.

## Product Parameters

Size (mm)	870 x 540 x 880
Platform	4W8D
Weight (kg)	≤ 110kg
Temperature	-20 to 60°C
Battery Life	6 hours
Charging	Wireless
Comms	WiFi/4G/5G Optional
Protection	IP66
Sensor Expansion	CH4 TDLAS, ACOUSTIC, OGI
Mobility	Max Speed 4m/s
Extension	4WIS, 360 avoidance, Controller, Satellite Ping, 2-way Speaker

## Use Cases

This robotic solution has been deployed in various industrial settings including synthesis tower, oil rigs and LNG storage tanks, enhancing asset owners' site management capacity by the accurate and timely collection of O&M data.

### Oil & Gas

- Outdoor
- Explosive
- Pipelines

### Chemical Plant

- Hazardous Gas
- Explosive
- Pipelines

### Metal Furnace

- Indoor
- Extreme Temp.
- Poisonous CO