



Inspection support  
technology  
DX Technology  
Unmanned  
operation

## An All Terrain Crawler Robot: Moves Effortlessly Through Rubble of Ruins

Enters where people can't—enabling safe and reliable on-site inspections

### Struggling with inspections in inaccessible or hazardous areas?

Even in harsh environments where conventional methods fall short—such as shallow channels, sewer pipes, spaces with toxic gases, or post-disaster sites—our waterproof crawler robot operates reliably across diverse field conditions, enabling safe and accurate surveys instead of human inspectors.

## Challenges Observed During Field Deployment

### Do You Face Any of These Challenges?

- Need to respond immediately after a disaster
- Want to balance efficiency and safety in harsh environments
- Boats cannot be deployed in shallow water conditions, such as during dry seasons or at low tide
- Need to safely and reliably inspect and visualize dangerous or confined spaces
- Operational difficulties in narrow box culverts due to limited wireless communication
- Equipment with poor waterproofing requires extra effort for cleaning and maintenance

#### Unsafe for Human Entry



◀ Disaster ruins or debris

#### Inaccessible to People—and Unsuitable for Boats or Drones



▲ Small-diameter, dry pipelines ▲ Narrow culverts with shallow water



## Ideal Use Scenarios

This crawler-type robot is designed for inspections and surveys in areas that are inaccessible or hazardous for people. Built for operation in harsh environments—including rough terrain, confined spaces, and disaster or volcanic sites—it adapts flexibly to a wide range of field conditions.

### Typical Applications

- Entry into hazardous areas immediately after a disaster
- Inspection of shallow waterways
- Inspection and surveys on slopes and embankments and more
- Surveys in active volcanic areas (toxic gas detection, soil sampling)
- Inspection and surveying of confined culverts, box girders, and sewer pipes

Remote-controlled operation via tablet with real-time video monitoring



Easily traverses steps and debris



All-weather operation (rain & snow)



Equipped with lights for operation in dark areas



Smooth movement in U-shaped structures



Stable on rough terrain and slopes



High mobility in muddy conditions

## Featured Technology 2

### Flexible Payload Configuration for Any Task

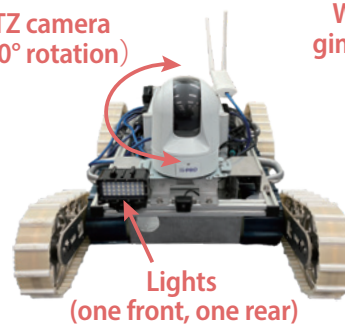
The system allows flexible onboard equipment configurations to adapt to diverse field conditions. In addition to standard cameras and lights, a wide range of inspection and measurement devices can be mounted, enabling safe and reliable inspections and surveys even in harsh environments.

#### Key Points

- ▶ Payload capacity: up to 15 kg  
Supports cameras, sensors, and mission-specific equipment
- ▶ Wired or wireless operation  
Switchable modes depending on the environment
- ▶ Waterproof design  
Fully washable after use for easy maintenance
- ▶ Compact and lightweight  
Smooth in confined spaces, single-person handling

Full-range imaging, even in dark areas

PTZ camera (360° rotation)



Lights (one front, one rear)

Stable imaging even under heavy vibration

Waterproof gimbal camera



Footage inside a box culvert captured by the PTZ camera

Portable by one person  
Unit weight: approx. 24 kg  
Length: 800 mm / Width: 500 mm

