



SURVEY
AIRBAG

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MiniPro

**Advanced Protective System for
Tripod-Mounted Total Stations &
Laser Scanners**

surveyairbag.com

MiniPro Airbag Key Product Features

MiniPro is an intelligent airbag protection system designed to safeguard high-value surveying instruments from accidental tripod falls. Using real-time sensor monitoring and ultra-fast deployment technology, MiniPro activates before impact, significantly reducing the risk of costly damage and downtime. Developed and manufactured in the UAE, MiniPro combines precision engineering, smart detection algorithms, and a durable, lightweight design for professional surveying environments.

Advanced Smart Detection System

- Uses gyroscopic data and intelligent algorithms to accurately identify real fall events
- Continuously monitors instrument status in real time
- Differentiates accidental falls from normal handling, setup, and transport
- Filters out routine movements to prevent false activations and unintended deployments



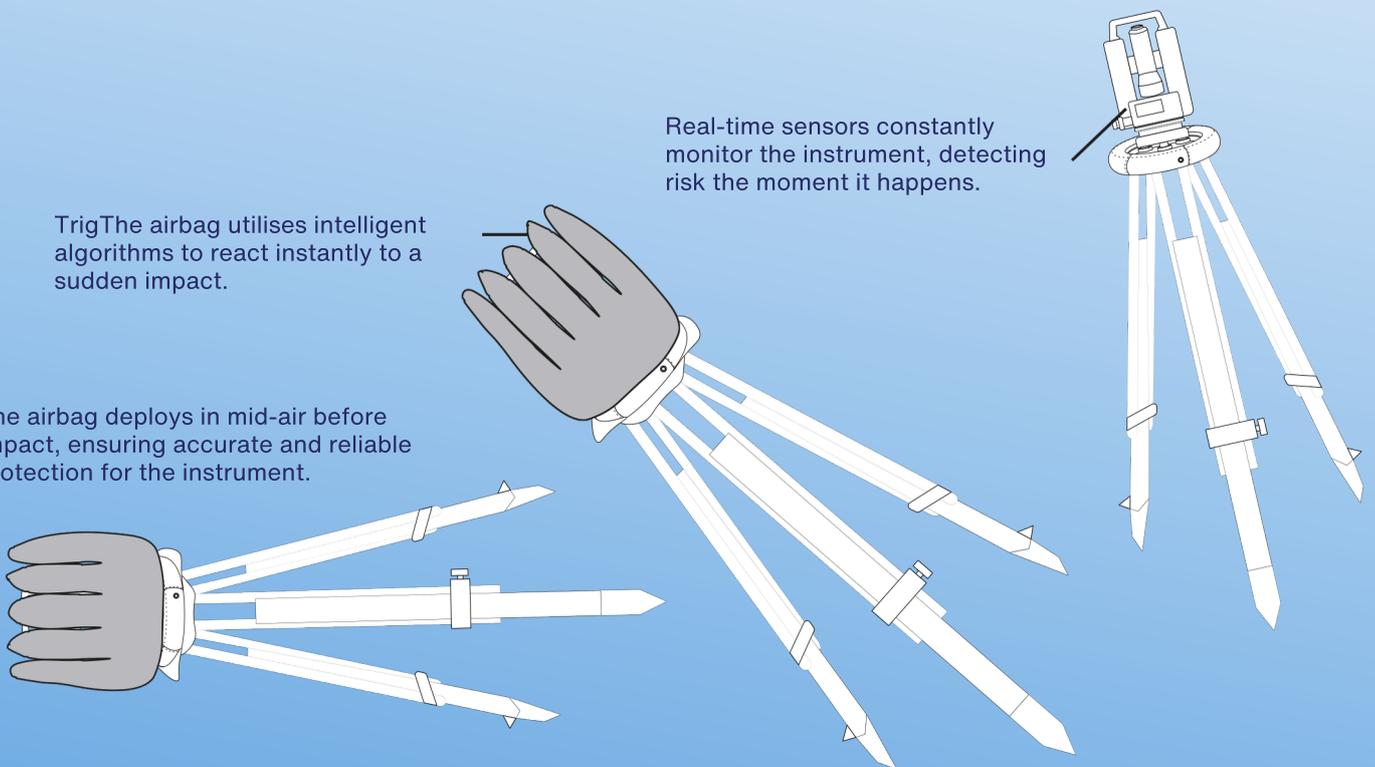
Ultra-Fast Airbag Deployment

- High-speed intelligent algorithm processes data in real time
- Airbag deployment triggered in approximately 0.01 seconds
- Airbag fully inflates before the instrument reaches the ground
- Provides precise, targeted protection at the moment of highest risk

The airbag utilises intelligent algorithms to react instantly to a sudden impact.

The airbag deploys in mid-air before impact, ensuring accurate and reliable protection for the instrument.

Real-time sensors constantly monitor the instrument, detecting risk the moment it happens.



Why Choose Survey Airbag?

Smart, Automatic Protection

Automatically detects genuine tripod fall events and deploys the airbag in milliseconds, helping protect valuable surveying instruments before impact occurs.

Lightweight & Non-Intrusive

Lightweight, flexible protective fabric designed to avoid interfering with instrument setup, operation, or workflow, while remaining easy to transport between sites.

Long-Lasting Rechargeable Power

Dual rechargeable Li-ion batteries provide up to 60 hours of continuous operation, supporting long field sessions with minimal downtime or charging interruptions.

Smart Lock & Placement Detection

Integrated placement detection ensures the system operates only when correctly mounted on a tripod, preventing incorrect use and unintended airbag deployment.

Built for Tough Environments

Designed for demanding outdoor conditions, resistant to rain and dust, and engineered to operate reliably in temperatures from -40°C to $+65^{\circ}\text{C}$.

Universal & Reusable

Compatible with all major surveying instruments and tripods. After deployment, the airbag can be recycled and reactivated at low cost in the UK, reducing long-term ownership costs.

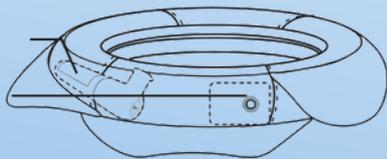


Basic Structure

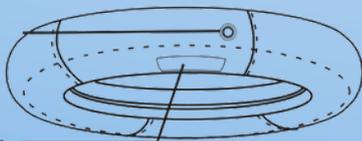
Airbag area



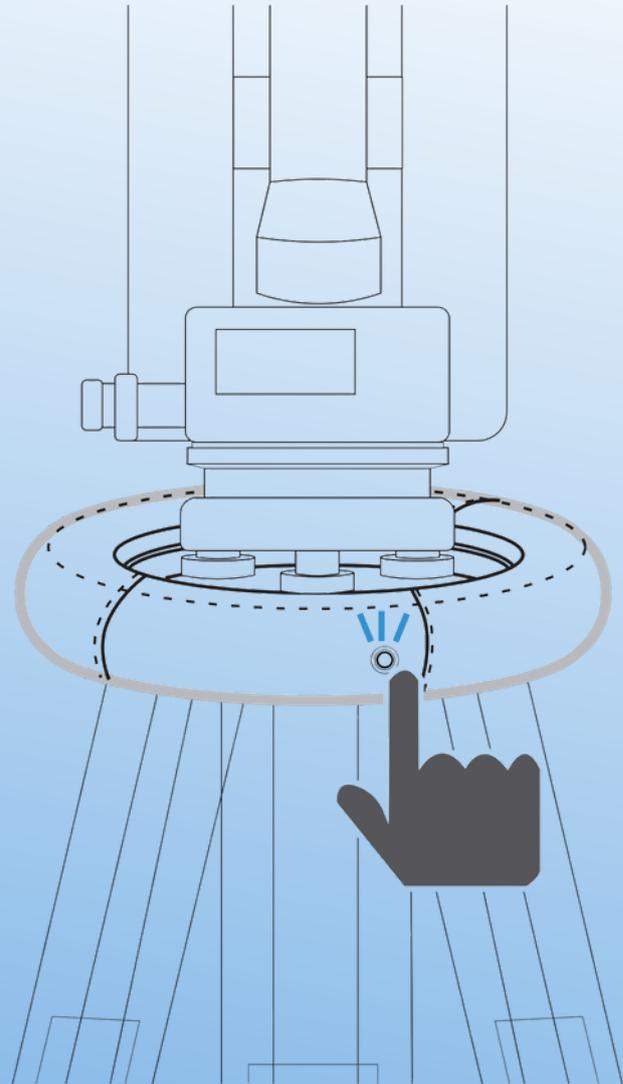
Air cylinder module
Chip motherboard



Switch, indicator light



Battery :
2pcs 18650 Battery 3.7 V
@3500mAh



Press the switch.
The switch indicator lights up and the device starts

Compatibility

- Compatible with all round tripod heads with a **165 mm diameter** (standard surveying tripods)
- Compatible with all major professional surveying brands: GeoMax, Trimble, Leica, FARO



Internal Memory & Service Diagnostics

- Onboard memory records system activity and deployment history over extended periods
- Stores operational logs for several months
- Enables precise diagnostics for maintenance, warranty support, and after-sales service
- Supports performance analysis and long-term reliability monitoring

Device Specifications

- Dimensions: 30 cm (W) × 7 cm (H)
- Weight: 1.1 kg
- Construction: Lightweight, high-strength protective fabric
- Manufactured in the UAE

Electrical Specification

- **Battery Type:** Dual 18650 Li-ion cells, 3.7V, 3500mAh each
- **Operating Voltage:** 3.7V
- **Standby Current:** <100 mA
- **Normal Operating Current:** 250–300 mA
- **Pulse Current:** Up to 2000 mA for 2–4 ms
- **Battery Life:** Up to 60 hours per full charge

Signal & Status Indication System

- LED and audible indicators provide clear system status feedback
- Visual and sound alerts for:
 - Normal operation
 - Battery status
 - Sensor or system errors
 - Trigger and gas deployment status
- Ensures users are always aware of device readiness and system health

Reactivation

- Each device can be reset and reactivated up to 5 times per unit
- Reactivation and testing can be undertaken in the UK by approved resellers

Warranty & Guarantee

- 2-year manufacturer warranty
- Covers fabric cracks and manufacturing defects

What's in the Box

- MiniPro Airbag Protection Device
- Dual 18650 Li-ion batteries
- Battery charger
- User manual and product catalogue
- Product identity card with unique barcode (warranty tracking)



Read more FAQ's on the website

surveyairbag.com



surveyairbag.com

See It In Action

Reduce repair cost



<https://youtu.be/THa1k9i8CSQ>

Ease of use



https://youtu.be/Hxbfho_UJSQ

Recycle and reactivated in the UK



<https://youtu.be/1TxEB-lvr-E>



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