RioV360

AI Pedestrian Detection System

PRODUCT BROCHURE



360° Awareness. Total Confidence.

Up to four rugged AI cameras watch every side of the machine, alert the operator and the worker on foot at the same moment, and record every shift in 1080p. No cloud, no Wi-Fi, no subscription.



360°
coverage with up to 4 cameras

120 dB
beacon warns the worker on foot

1080p
continuous recording

$0
per month, no subscription

Ask about our PILOT Unit Program
Discount on your first unit. Test it on your own machine.

START WITH ONE UNIT

RioV360
AI Pedestrian Detection System

The Blind Zone Isn't the Operator's Fault

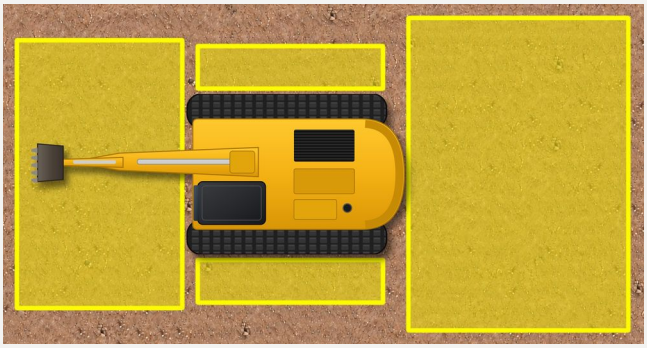
Every machine has a dead zone built into its design. RioV360 closes it with on-device AI that never looks away.



DETECT • ALERT • WARN • RECORD

How RioV360 Works

1. **Detect**
   Rugged AI cameras cover up to all four sides. On-device AI recognizes pedestrians and vehicles in real time inside configurable green, yellow and red zones.
2. **Alert**
   The operator gets an instant visual and audible alarm on the 7" in-cab monitor, with the person boxed on screen. No manual activation.
3. **Warn**
   At the same moment the external beacon fires a 120 dB voice alert, alarm and flashing red light, so the worker on foot reacts too.
4. **Record**
   All cameras record continuously, date and time stamped. Every detection also saves its own event clip.



A curtain of detection around the machine

Front, rear, left and right each get their own zone. You decide how far each one reaches, from 0 to 5 meters, and whether it is a single red zone or graduated green, yellow and red.

130°	0 to 5 m	< 400 ms	0 lux
view per camera	configurable zones	detection to alert	infrared night vision

The Worker Is Warned Too

Most systems only alert the operator. RioV360's external beacon also warns the person on foot the moment they enter the zone, with a 120 dB voice alert, alarm and flashing light. Plug-and-play aviation connectors, no configuration.

"No one wants to set off the system. The 120 dB alarm is not something a worker forgets."

People, Not Just Motion

The AI recognizes people standing, crouching, kneeling or partly hidden, so dust, shadows and vegetation don't set off false alerts. No tags, vests or wearables: visitors, drivers and contractors are detected the moment they walk near the machine.

Sensitivity and zone size adjust per camera for indoor or outdoor work.

RioV360
AI Pedestrian Detection System

Everything in One Box.

Cameras, monitor, beacon, recording and a complete installation kit. Nothing to source separately.



CAMERAS • MONITOR • BEACON • RECORDING • INSTALL KIT

What's in the RioV360 System

- **1 to 4 AI HD Cameras**
  1080p, 130° field of view each, up to full 360° coverage. IP69K waterproof, IK06 shock rated, 0 lux night vision with built-in infrared.
- **7" In-Cab Color Monitor**
  IPS screen with sunshade and alarm speaker. Single, dual, triple or quad view with detection zones drawn live on screen.
- **External Flashing Beacon**
  120 dB voice alert, audible alarm and flashing light, triggered with every in-cab alert.
- **256 GB Onboard Recording, Included**
  High-endurance microSD card built for continuous recording. About 30 hours of 4-camera 1080p video. Upgrade to 512 GB for about 60 hours.
- **Complete Installation Kit**
  Every bracket, cable, fastener, TEK screw, washer, split loom and connector, plus instructions. Most teams install it in under 2 hours.



Plug-and-play aviation connectors
12 V and 24 V direct, higher voltage with converter

Options and Accessories

Add what fits your site. Every option is listed on your quote.

- **512 GB Storage Upgrade**
  about 60 hours of 4-camera video
- **Magnetic Camera Mounts**
  no-drill brackets for rental machines
- **Bench Test AC Power Adapter**
  set up and learn it on a table first
- **Factory Color Package**
  CAT yellow or black hardware
- **Monitor Extension and Mounting Kit**
  rail clamp, round base and bracket mounts
- **Extension Cable Package**
  for long-frame and large machines
- **Extended Warranty**
  3 or 5 years of coverage
- **Heavy Duty Installation Kit**
  steel beacon housing

RioV360
AI Pedestrian Detection System

Video You Can Actually Use.

Every camera records continuously to an onboard card. When something happens, the footage is already there.



RECORD EVERY SIDE, EVERY SHIFT

Onboard Video Recording

RioV360 works like a black box for the machine. All cameras record at the same time, date and time stamped and organized by day. Pull the card on site and review it on any laptop. No login, no dashboard, no uploads.

256 GB	included: about 30 hours of 4-camera video
512 GB	upgrade: about 60 hours, more than a work week
Event clips	saved automatically on every detection
Lock	a long press protects critical footage
Overwrite	oldest files roll off when the card is full



How Your EHS Team Uses the Video

Incident Investigation
See what happened from all four sides, not just one person's account.

Near-Miss Review
Every detection saves its own clip, so close calls get reviewed and fixed.

Operator Coaching
Train with real footage from your own machines and your own site.

Damage Documentation
Show how equipment, structures, vehicles and materials were damaged.

Deliveries and Site Activity
Confirm what was delivered, moved or dropped, and when.

Safety Meetings
Turn real moments into toolbox talks your crews remember.

Set It Up for the Way Each Machine Works

- **Detection modes:** pedestrian only; pedestrian and object; or pedestrian, object and vehicle
- **Zone layouts:** single red zone; red and yellow; or graduated green, yellow and red, set per camera
- **Range and sensitivity:** 0 to 5 m by camera and zone; high, medium or low sensitivity
- **Day and night:** 0 lux with built-in infrared and automatic day and night switching

RioV360
AI Pedestrian Detection System

Universal Fit. Every Machine.

Installs on any machine. No custom wiring, no site survey, no IT project.



WHEEL LOADERS • EXCAVATORS • SKID STEERS • TELEHANDLERS • MORE

Coverage by Machine

Wheel Loaders
Full 360° coverage on large-frame machines.

Excavators
Monitors the swing arc and ground-level zones.

Skid Steers
Rear corners covered regardless of arm position.

Telehandlers
Covers the front-right zone that opens when the boom raises.

Heavy-Duty Forklifts
Four cameras cover the counterweight dead zone.

Forklifts
Front and rear coverage for yard and dock traffic.

Dump Trucks
Forward, rear and side cameras for extended blind zones.

Scrapers
Front camera active during the loading pass.

Model-by-model fitment guides for wheel loaders, excavators, skid steers, telehandlers, forklifts and more: riodatos.com/fitment-guide

Industries

- ☑ Construction and civil works
- ☑ Surface mining and quarrying
- ☑ Lumber and sawmills
- ☑ Steel and metals
- ☑ Drilling and energy
- ☑ Heavy manufacturing plants
- ☑ Ports and freight terminals
- ☑ Waste and recycling

Where It Fits Your Safety Program

OSHA 29 CFR 1926.602(a)(9)(ii)
Earthmoving equipment with an obstructed rear view needs a reverse alarm or a signal person. RioV360 adds 360° detection and video on top.

ISO 5006
The test method for an earthmoving operator's field of view. RioV360 cameras cover the blind areas it identifies.

ISO 21815
Separates collision warning from avoidance. RioV360 warns; it does not take control of the machine.

MSHA Subpart T
Mines need a written safety program for surface mobile equipment. Alerts and footage support it.

ISO 45001
Recorded alerts and near-miss video document ongoing hazard monitoring.

Hardware carries CE, FCC, EMC and RoHS markings • 18-month warranty • 3 and 5 year extended warranties available

RioV360
AI Pedestrian Detection System

Test One Unit. Prove It. Scale.

Buying an AI safety system is rarely a one-person decision. The PILOT program lets your whole team test it on your own equipment.



RIOV360 PILOT PROGRAM

What Customers Tell Us

> *"Both systems are installed and working great."*

> *"Installation was straightforward, and the system is easy to navigate."*

> *"My manager was amazed at how well it detects people and vehicles."*

> *"We're impressed by the camera quality."*

> *"We haven't needed to pull any footage yet, but it's reassuring to know it's there."*

The PILOT Unit

Order one RioV360, install it on your highest-risk machine and run it under real conditions. The alerts, the footage and the coverage speak for themselves.

- [x] 1 to 4 AI cameras
- [x] 7" in-cab monitor
- [x] External flashing beacon
- [x] 256 GB high-endurance card
- [x] HD cables with aviation connectors
- [x] Complete installation kit

PILOT unit discount • Fleet pricing

Frequently Asked Questions

Does RioV360 need cloud, Wi-Fi or a subscription?
No. AI processing and recording happen entirely on the device. No connectivity and no monthly fees.

How much video does it record?
The included 256 GB card holds about 30 hours of 4-camera video. The 512 GB upgrade holds about 60 hours.

Does it work at night?
Yes. The cameras see in total darkness (0 lux) with built-in infrared and switch day and night automatically.

Does it need tags, vests or wearables?
No. The AI recognizes people by shape, so anyone near the machine is detected. Nothing to buy, charge or enforce.

How long does installation take?
Most teams install it in under 2 hours. Allow 2 to 4 hours for your first install.

What is the warranty?
18 months against defects in materials and workmanship, with 3 and 5 year extensions. Support is direct by phone or email.

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Technical Specifications.

Built for dust, mud, wash-down and temperature extremes. Shipped and supported from Tucson, Arizona.



SYSTEM SPECIFICATIONS

Monitor

Screen
7" IPS, 1024 x 600

Viewing angle
85° left, right, up and down

Video input
4-channel AHD 1080P / 720P

Recording
1920 x 1080P, 25 FPS per channel, H.264 TS

Storage
256 GB high-endurance microSD included; 512 GB upgrade

Screen modes
Single, dual, triple or quad

Audio
Built-in microphone and speaker

Power
DC 8 to 32 V, 5 W max

Operating temp.
-20°C to +70°C

Dimensions
218 x 149 x 82 mm with bracket and sunshade

Cameras

Type
AI-compatible AHD 1080P

Sensor
1/2.9" CMOS, 1920 x 1080

Viewing angle
130°

Low light
0 lux with built-in infrared

Day / night
Automatic IR-CUT switching

Waterproof
IP69K

Shock
IK06

Operating temp.
-20°C to +60°C

Power
DC 12 V, 5 W

System

Operating voltage
8 to 32 V DC (12 V and 24 V machines)

AI detection
Person, vehicle and object; green, yellow and red zones

Detection range
0 to 5 m, configurable by camera and zone

Detection to alert
Under 400 ms

Recording
Four simultaneous channels, date and time stamped

Beacon
120 dB voice alert, alarm and flashing light

Video system
PAL / NTSC

Connectivity
None required. No cloud, no subscription

Markings
CE, FCC, EMC, RoHS

Warranty
18 months; 3 and 5 year extensions

Get RioV360 Pricing

Request pricing online or email info@riodatos.com. Just your name and email: pricing, the recommended kit and specs arrive within one business day. No phone number needed.

REQUEST PRICING

PILOT UNIT DISCOUNT

USER MANUAL

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