iOmniscient

iQ-Preventive Maintenance
: Electrical System Maintenance

Video rodent detection and
e-Nose warning before an electrical fire



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Electrical Fire Risk

Voltage surges and damaged insulation can lead to devastating fires

EARLY WARNING



SMOULDERING WIRE

Before flames

The e-Nose can smell smouldering plastic insulation before fire erupts.

Voltage surges

Sudden surges in voltage can cause electrical faults.

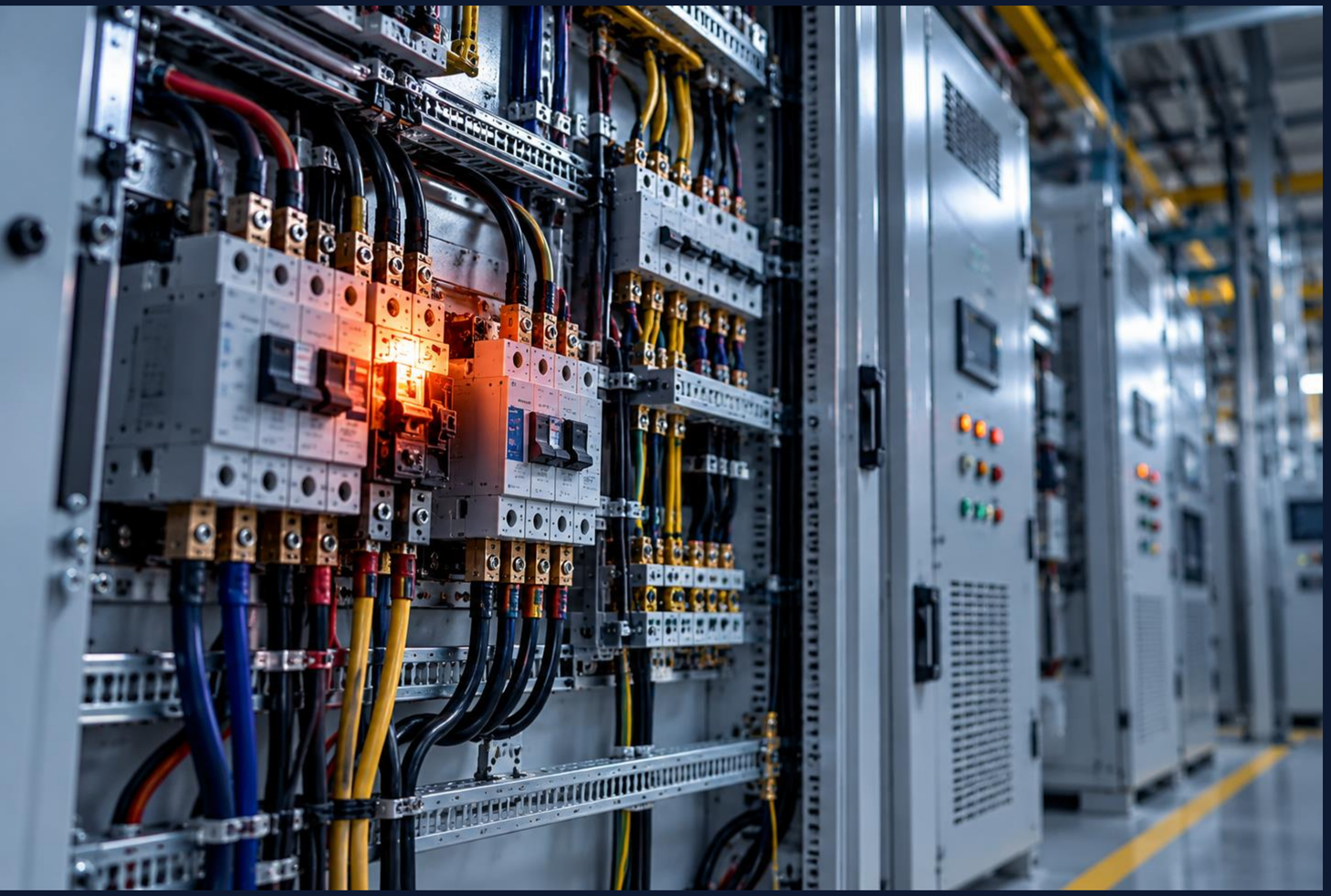
Rodent damage

Rats can bite insulation and cause wires to short circuit.

Consequences

A fire can interrupt business and threaten life and assets, even when insured.

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VIDEO & e-NOSE

Two Detection Channels

See rodents, Smell danger

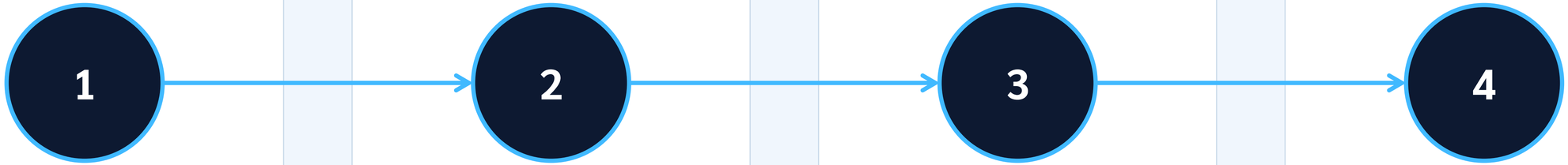
Video detects rodents in wiring areas and shows where they are coming from.

The e-Nose detects smouldering plastic insulation; quick response can prevent fire.

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Early Fire Response

Odor detection and alert-driven action can stop an emerging fire



Sense

Train the e-Nose for a specific smell and differentiate it from other odors.

Detect

Recognize smouldering plastic insulation just before a fire erupts.

Alert

Raise an alert for a rapid response to the electrical fault.

Prevent

Quick action can prevent facility damage and loss of life and assets.

SPECIFIC SMELL

ACTION BEFORE FIRE

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Detection Accuracy

NAMS and odor discrimination reduce nuisance alerts

PATENT



Internationally patented

The core technology is internationally patented.

e-NOSE

Human-like sensing



Can be trained for a specific smell and distinguish it from others nearby.
Multi-sensory video, sound and smell analytics enable human-like system response.

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Deployment and Response

Quick setup and autonomous responder guidance support protection

FAST IMPLEMENTATION

Virtually no training

Little or no training enables rapid deployment across many locations.

NAMS

LOW FALSE ALARMS

The Nuisance Alarm Minimization System supports accurate rodent detection. NAMS detects small objects like rats with virtually no false alarms.

AUTONOMOUS RESPONSE

Finds the nearest responsible person and advises them of the issue.

AVOIDED LOSS

Rapid action can prevent facility damage, business interruption and loss of life.

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Sustainable Systems

Intel-based AI with lower power demand



All iOmniscient products run exclusively on Intel-based computing hardware. Advanced AI goes beyond Deep Learning.

INTEL-BASED COMPUTING

NO 3RD-PARTY GPUs

16× LOWER POWER

16× LOWER CARBON FOOTPRINT

Power use falls by a factor of 16,
resulting in a 16-fold reduction in carbon footprint.
The program helps customers implement Sustainable Systems.

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About iOmniscient

Partnership

All iOmniscient Products run exclusively on Intel based computing hardware using OpenVINO™

- The use of Advanced AI technology that goes beyond Deep Learning enables iOmniscient to run its systems without the need for 3rd party GPUs.
- This reduces the power required by a factor of 16 – resulting in a 16-fold reduction in the carbon footprint.
- This is just one part of a multi-faceted program to help customers to implement Sustainable Systems.

www.iomni.ai

enquiries@iomni.ai

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About iOmniscient

- iOmniscient is an **Ethical AI** company.
- It offers **multi-sensory (video-sound-smell) Artificial Intelligence based analytics for Autonomous Systems.**
- It focuses on ensuring **Outcomes** for its customers.
- With **over 2 decades of experience,** iOmniscient systems have been demonstrated to be **robust,** operating with high accuracy and few false alarms specially in **complex and crowded** environments.
- By design, its systems **reduce the cost of infrastructure** required:
  - they can use existing cameras
  - they require fewer cameras with lower resolution
  - they require 90% less storage and network bandwidth
  - they are computing light and require no GPUs
  - they allow autonomous operations requiring fewer personnel to operate
- iOmniscient has implemented projects in **70 countries.**
- With over **70 international patents** many of its capabilities are unique and unavailable from any other source.





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