

**VyO Vision**  
**AERS-Integrated Adaptive HUD for Real-Time Safety &  
Emergency Response**

Enhancing visibility, detecting hazards, and accelerating emergency response in mission-critical environments

See what matters — before it's too late.

Patent Pending (April 2026)

**Continue...**

- ✓ HUD Projection (speed, alerts, orientation)
- ✓ Adaptive Prescription Adjustment (liquid lens)
- ✓ Full 3D Orientation Tracking (pitch, roll, yaw)
- ✓ Real-Time Hazard Detection Alerts
- ✓ Automatic Emergency Response System (AERS)
- ✓ Fully Offline Operation (no connectivity required)

**Existing HUDs, ADAS, and smart glasses solve parts of the problem — none integrate all six capabilities into a single system.**

**VyO Vision defines a new category: Adaptive Optics Safety Systems.**

# VyO Vision

- Built and validated a functional adaptive HUD prototype integrating optics, sensors, and real-time alerts
- Founder & CEO: Catherine Jones
- Creator of VyO Vision (concept originated in 2010)
- 10+ years of independent research in adaptive optics & vision safety
- Built and validated a working hardware prototype
- Focused on real-world safety across driving, aviation, and aerospace

Patent Pending (April 2026)

[www.vyovision.com](http://www.vyovision.com)

# The Problem

Every year, millions of accidents occur due to:

- Low visibility and poor situational awareness
- Delayed reaction to hazards
- Inability to clearly see critical information in real time

Drivers, pilots, and operators are forced to split attention between the real world and multiple instruments — increasing risk in high-speed, high-stakes environments.

In critical moments, seconds matter — and current systems fail to deliver the right information at the right time.

# Real Story (Emotional Impact)

- A woman crashed off an expressway bridge.
- She was trapped for **6 days**.
- Nobody could see her.
- Nobody could hear her.
- She almost died alone.

**Source: ABC7 Chicago News**

**If she had VyO Vision, she would have been detected instantly.**

**VyO Vision exists to prevent situations like this.**

# Solution

## VyO Vision Solution

- ✓ Real-Time HUD Projection (speed, alerts, orientation)
- ✓ Adaptive Vision Correction (liquid lens auto-adjustment)
- ✓ Full 3D Orientation Tracking (pitch, roll, yaw)
- ✓ Real-Time Hazard Detection & Alerts
- ✓ Automatic Emergency Response System (AERS)
- ✓ Fully Offline Operation (no connectivity required)

Existing HUDs, ADAS, and smart glasses solve parts of the problem — none integrate all six capabilities into a single system.

VyO Vision is the first unified Adaptive Optics Safety System.

# Key Features

- HUD Projection (speed, alerts, orientation)
- Adaptive Vision Correction (liquid lens)
- 3D Orientation Tracking (pitch, roll, yaw)
- Hazard Detection Alerts (visual + audio)
- Emergency Response (AERS)
- Multi-User Profiles
- Offline Operation (no internet required)

# Why Now? (Market Timing)

- - Rise in road accidents
- - EV + autonomous vehicles growing
- - HUD adoption increasing
- - Aviation safety tech demand rising
- - Spaceflight crew safety expanding

**Market trends indicate increasing demand for enhanced safety and situational awareness systems.**

# Competitive Landscape

**No existing solution integrates all of the following:**

- HUD +
- Prescription auto-correction +
- Adaptive optical tuning +
- Orientation awareness +
- Approach detection +
- Emergency auto-notification

**VyO Vision is the only system that unifies all 6.**

# Technology Overview

## **VyO Vision integrates:**

- Adaptive optics module
- Real-time orientation sensing
- Embedded processing unit
- HUD projection system
- Context-aware safety logic

# Technology Overview cont...

- Current optical system (MVP)
- Adaptive optics module
- Dynamic vision adjustment
- Real-time sensor-based adjustment
- Improved clarity in low visibility
- Astigmatism support

- No interference with existing CYL / AXIS correction
- Roadmap: advanced optics
- Multi-axis adaptive optics
- Personalized optical profiles
- Aerospace-grade enhancements

# Technology Overview cont...

Vision augmentation system — not a medical device replacement.  
That's the cleanest way to include it without messing up the optical focus of the slide.

- Compatible with standard prescription glasses or contacts
  - VyO Vision augments spherical focus & situational awareness
  - No interference with existing CYL / AXIS correction
  - Roadmap (Advanced Optics)
  - Multi-axis adaptive optics
  - Cylindrical (CYL) compensation layers
  - Personalized optical profiles per user
- Aviation & aerospace-grade enhancements*

- Detects hazards and environmental changes
- Delivers contextual alerts and safety cues
- Triggers emergency response when needed

# How It Works

- Tracks orientation and motion in real time
- Dynamically adjusts visual clarity based on user needs
- Detects hazards and environmental changes
- Provides contextual alerts and safety responses
- Can trigger emergency notification when needed

- Invisible when off
- Full cockpit integration

Long-term roadmap

# Future Product: Embedded Windshield HUD

## **VyO Vision can be:**

- Built directly into the windshield glass
- Activated at the push of a button
- No film needed
- Invisible when off
- Full cockpit integration

**This is the long-term vision.**

# Business Model

- Industrial fleet partnerships
- OEM licensing
- Enterprise safety subscriptions
- Premium emergency response services

# Traction

- 14 years of founder-led development
- Working prototype built
- Patent counsel retained
- Provisional patent filed
- Early investor and industry conversations

# IP Strategy (Adam's Section)

- • Provisional Patent Filed — April 2026
- Adaptive optics + safety system claims
- HUD + emergency detection integration
- Non-provisional planned (2027)

Strong protection across optical, hardware, and software methods.

- Combined market opportunity across fleet, automotive, aviation, and aerospace
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# Market Size

- Initial market: Industrial fleets
- Beachhead: Fleet safety and emergency response
- Expansion: Automotive safety technology
- Expansion: Aviation cockpit systems
- Long-term expansion: Aerospace
  
- Combined market opportunity across fleet, automotive, aviation, and aerospace

# Go-To-Market

- Phase 1: Industrial fleet pilots
- Phase 2: Fleet safety partnerships
- Phase 3: OEM / enterprise integration
- Phase 4: Expansion into aviation and aerospace

# Financial Projections (Simple)

- Year 1: Prototype → Pilot
- Year 2: Pilot → Partnerships
- Year 3: Scale manufacturing
- Year 4: Major OEM deals

# Funding Ask

- Raising \$2M seed round

To fund:

- Patent completion
- Hardware refinement
- Fleet pilot program
- Manufacturing setup
- Embedded windshield R&D

# Why VyO Vision?

- Why VyO Vision?
  - AERS-integrated safety system
  - Patent pending technology
  - Working prototype built
  - 14+ years of founder-led development
  - High-impact safety mission
  - Large multi-sector market opportunity

# AERS Roadmap — Future Safety Capabilities Cont...

## **Phase 1 — Core Emergency Functions**

- ✓ Crash detection
- ✓ Location-based emergency alerts
- ✓ Automatic notification to selected family/friends
- ✓ Real-time hazard detection

## **Phase 2 — Advanced Safety Communication**

- ✓ Safe-arrival notifications (“I arrived safely” auto-message)
- ✓ Public alert integration (AMBER Alerts, missing person notices)
- ✓ Emergency contact routing (SMS/email push notifications)
- ✓ Expanded offline safety logic

# AERS Roadmap — Future Safety Capabilities

## **Phase 3 — Incident Support & Documentation**

- ✓ Auto-triggered video recording during an accident
  - ✓ Location + timestamp logging
- ✓ Evidence packet creation for insurance or investigators
  - ✓ Optional connection to legal support networks

## **Phase 4 — Full AERS Ecosystem**

- ✓ Integrations with emergency partners
  - ✓ Secure cloud escalation options
  - ✓ Vehicle-to-Responder communication
- ✓ Multi-device safety synchronization (car, motorcycle, aircraft)

# The Founder

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  - Catherine Jones
  - Founder & CEO
  - Creator of VyO Vision (concept originated in 2010)
  - 14+ years of founder-led development
  - Built a working prototype

# Closing

VyO Vision

AERS-Integrated Adaptive HUD for Real-Time  
Safety and Emergency Response

Thank you.