



Iris Authentication

Bank Level Biometric Security,
Optimized for In-Cabin Environments

In-vehicle identity authentication is rapidly becoming a necessity. As cars evolve into connected digital spaces, protecting access to personalized content, payment functions, and vehicle controls requires a secure, effortless solution. Smart Eye's Iris Authentication technology offers just that — a powerful, privacy-preserving method of verifying identity using the most stable and unique biometric feature of the human body.

Unlike traditional methods, Iris Authentication is contactless, hygienic, and resistant to external influences like facial changes or accessories. Integrated into Smart Eye's Driver Monitoring System (DMS), it enhances both vehicle security and user experience without introducing friction into the cabin environment. At CES 2026, visitors can experience Iris Authentication operating reliably at distances up to 1.5 meters.

A Natural Fit for the In-Cabin Experience

Iris Authentication enables a broad set of in-cabin use cases that enhance both safety and user experience.



Two-Factor Authentication
Securely provides secondary biometric authentication and verify driver identity with a single glance.



Usage Restrictions
Enable parental controls or fleet permissions based on who's driving.



Personalized Profiles
Automatically load seat, mirror, media, and climate preferences.



Data Access Control
Protect sensitive user data and content stored in the vehicle.



In-Car Payments
Authenticate transactions for tolls, parking, or digital services.



Health & Wellness
Enable health-related features that require verified identity.

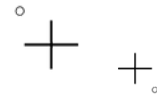


Theft Deterrence
Prevent unauthorized access and ignition based on biometric ID.



AI-Driven Personal Assistants
Support context-aware responses and secure access to Gen AI tools.

The Future of In-Cabin Authentication



Iris Authentication builds on decades of biometric research to deliver unmatched reliability and speed. As demonstrated in Smart Eye's CES 2026 showcase, enrollment is completed in under two seconds and authentication in under one second. Deployed in vehicles, the system ensures secure access while supporting personalized in-car features, including profile switching, content access, in-car payments, and anti-theft protection.

Using infrared illumination and a standard cabin-facing camera, it acquires structured biometric data without requiring the driver to reposition or pause. It accommodates a diverse range of users across various age groups, ethnicities, eye wear types, and lifestyle factors, and even tells identical twins apart. For continuous verification, it can also be fused with face identification.

Key Benefits & Technical Highlights

Authentication Time	<1 second for verification
Enrollment Time	<2 seconds
False Match Rate (FMR)	Better than 1:100,000
Failure to Enroll Rate	<0.1%
Compatible with Accessories	Supports glasses, masks, makeup, beards, headwear, etc.
Environmental Robustness	Effective in variable lighting, driver movement and position
Hygienic & Contactless	No touchpoints; ideal for shared vehicle environments
Low Power, Low Cost	Operates with low-power NIR and standard resolution cabin camera
Privacy-First Design	Biometric templates processed on-device; no raw image storage; personally identifiable information (PII)
Scalable for OEM Integration	Built into Smart Eye's DMS architecture for seamless platform integration
Seamless Integration	Works with existing in-cabin cameras in normal seating positions, offering higher security than face authentication with no added compute needs

