

About Automatic License Plate Readers (ALPR)

The Problem: Violent Crime Is Not Going Away

Nationwide, cities are experiencing a disturbing rise in homicides and violence. The FBI's 2020 Crime Report shows a 30% increase in homicides from 2019 to 2020, the largest single-year increase recorded.

Over two-thirds of the country's most populous cities saw even more homicides in 2021.

One Solution: Technology that Detects Objective Evidence to Clear More Cases

Automated License Plate Readers (ALPR) capture computer-readable images of license plates and vehicles, allowing officers to compare plate numbers against those of stolen cars or wanted individuals on a crime database like the NCIC.

ALPR devices assist law enforcement in solving crime in two ways:

- Proactive - ALPR devices provide real-time alerts when a vehicle that is stolen or associated with a known suspect is detected.
- Investigative - ALPR cameras help determine whether and which vehicle(s) were at the scene of a crime.

Is ALPR effective ?

According to the National Conference of State Legislatures, when employed ethically and objectively, ALPRs are an effective tool for law enforcement, cutting down on the time required for investigations and acting as a force multiplier. In 2011, a study by the Police Executive Research Forum concluded that ALPRs used by the Mesa, Ariz., Police Department resulted in "nearly 3 times as many 'hits' for stolen vehicles, and twice as many vehicle recoveries."

Communities with ALPR systems report crime reductions of up to 70 percent. In some areas, that included a 60 percent reduction in non-residential burglaries, 80 percent reduction in residential burglary, and a 40 percent reduction in robberies.

ALPR Provides Objective Evidence While Protecting Privacy

ALPR does not include facial recognition capabilities and does not capture personally identifiable information (PII). While eyewitnesses and individual officers are subject to inherent human bias, ALPR cameras capture wholly-objective images of vehicles and license plates, providing a clear and actionable investigative lead.

ALPR Use Cases Include:

- **AMBER Alerts:** License plate readers in metro Atlanta were able to find a vehicle containing a kidnapped one-year-old, who had been taken from his mother at random off the street. The child was recovered unharmed. Some ALPR systems integrate directly with the National Center for Missing and Exploited Children's AMBER Alert system, sending real-time alerts to officers in seconds. [[New information released about 1-year-old's kidnapping](#)]
- **Silver Alerts:** Knoxville Police were able to locate a missing elderly man who suffers from dementia after he drove away in a family vehicle. ALPR technology has helped solve hundreds of Silver Alerts across the country. [[Missing man with dementia found using Flock camera](#)]
- **Firearm violence:** The Las Vegas Trail, a high-crime area in Fort Worth, TX, saw violent crime decrease by 22% in 2021 compared with the first nine months of 2019. Fort Worth Police attributed this drop partially to the license plate reader system implemented in the neighborhood during the same period of time. [[Crime is down 22% in Fort Worth's Las Vegas Trail. How neighbors and police made it safer](#)]
- **Organized theft:** Grafton, a growing village with a bustling retail district, is dealing with increased organized retail theft – Two-thirds of all the crimes reported to Grafton police in 2020 were retail thefts. Grafton Police have implemented a license plate reader system to identify vehicles that have been involved in thefts or have been stolen themselves. In one week alone, they recovered three stolen vehicles with drivers planning to engage in retail theft. [[Losses mount as retailers fight theft rings, accuse online storefronts of doing little to stop resale of stolen goods](#)]

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Sole Source Letter for Flock Safety™ ALPR Cameras and Solution

Flock Safety is the sole manufacturer and developer of the Flock Safety ALPR Camera. Flock Safety is also the sole provider of the comprehensive monitoring, processing, and machine vision services which integrate with the Flock Safety ALPR Camera.

The Flock Safety ALPR camera and devices are the only Law Enforcement Grade ALPR System to offer the following combination of proprietary features:

1. Vehicle Fingerprint Technology™:
 - Patented proprietary machine vision to analyze vehicle license plate, state recognition, and vehicle attributes such as color, type, make and objects (roof rack, bumper stickers, etc.) based on image analytics (not car registration data)
 - Machine vision to capture and identify characteristics of vehicles with a paper license plate and vehicles with the absence of a license plate
 - Ability to 'Save Search' based on description of vehicles using our patented Vehicle Fingerprint Technology without the need for a license plate, and set up alerts based on vehicle description
 - Only LPR provider with "Visual Search" which can transform digital images from any source into an investigative lead by finding matching vehicles based on the vehicle attributes in the uploaded photo
 - Falcon Flex™: an infrastructure-free, location-flexible license plate reader camera that is easy to self install. Falcon Flex ties seamlessly into the Flock ecosystem with a small and lightweight camera with the ability to read up to 30,000 license plates and vehicle attributes on a single battery charge

 2. Integrated Cloud-Software & Hardware Platform:
 - Ability to capture two (2+) lanes of traffic simultaneously with a single camera from a vertical mass
 - Best in class ability to capture and process up to 30,000 vehicles per day with a single camera powered exclusively by solar power
 - Wireless deployment of solar powered license plate reading cameras with integrated cellular communication weighing less than 5lbs and able to be powered solely by a solar panel of 60W or less
 - Web based footage retrieval tool with filtering capabilities such as vehicle color, vehicle type, vehicle manufacturer, partial or full license plate, state of license plate, and object detection
 - Utilizes motion capture to start and stop recording without the need for a reflective plate
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- Motion detection allows for unique cases such as bicycle capture, ATV, motorcycle, etc.
 - On device machine processing to limit LTE bandwidth consumption
 - Cloud storage of footage
 - Covert industrial design for minimizing visual pollution
3. Transparency & Ethical Product Design:
- One-of-a-kind "Transparency Portal" public-facing dashboard that details the policies in place by the purchaser, as well as automatically updated metrics from the Flock system
 - Built-in integration with NCMEC to receive AMBER Alerts to find missing children
 - Privacy controls to enable certain vehicles to "opt-out" of being captured
4. Integrated Audio & Gunshot Detection:
- Natively integrated audio detection capabilities utilizing machine learning to recognize audio signatures typical of crimes in progress (e.g., gunshots)
5. Live Video Integration:
- Ability to apply computer vision to third-party cameras using Wing™ LPR, transforming them to evidence capture devices using the same Vehicle Fingerprint technology offered on the Flock Safety Falcon™ ALPR cameras
 - Wing™ Livestream integrates live stream traffic cameras, publicly or privately owned livestream security cameras into one cloud-based situational awareness dashboard to increase response time in mission-critical incidents
 - Manage various government intelligence including ALPR, livestream cameras, CAD, automatic vehicle location (AVL) on Flock Safety's Wing™ Suite
 - Access Wing™ Replay to unlock enhanced situational awareness with 7-day footage retention, Hot List Live Video Instant Replay, and downloadable MP4
6. Partnerships:
- Flock Safety is the only LPR provider to officially partner with AXON to be natively and directly integrated into Evidence.com
 - Flock Safety is the only LPR provider to be fully integrated into a dynamic network of Axon's Fleet 3 mobile ALPR cameras for patrol cars and Flock Safety's Falcon cameras
 - Access to additional cameras purchased by our HOA and private business partners, means an ever-increasing amount of cameras and data at no additional cost
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7. Warranty & Service:

- Lifetime maintenance and support included in subscription price
- Flock Safety is the only fully integrated ALPR one-stop solution from production of the camera to delivery and installation
- Performance monitoring software to predict potential failures, obstructions, tilts, and other critical or minor issues

Thank you,



Garrett Langley CEO, Flock Safety

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Let's defeat crime together

Help your city reduce crime with cameras that see like a detective

"Flock Safety made my job easy. The system was up and running in just a few weeks, and has proven to help our police department find the evidence to solve more crime."

City Manager in Ohio

Flock Safety provides an affordable, infrastructure-free automatic license plate reading (ALPR) camera system for cities who want to reduce crime within a principled framework. Unlike traditional ALPR, Flock uses Vehicle Fingerprint™ technology to transform hours of footage into a searchable database to find the single piece of evidence needed, even when a license plate isn't visible.

Not your average security cameras

Infrastructure-Free and Discreet Design

With solar power and LTE connectivity, we can install the devices almost anywhere. And the beautiful design means it will blend in with your city's aesthetic.

Safety-as-a-Service

We install and maintain the devices, so you can focus on running the city. That means we will support you from procurement, through permitting, and even preparing you to present this project to the city council.

Vehicle Fingerprint Technology

Your officers can find vehicle evidence by vehicle type, make, color, license plate state, missing and covered plates, and other unique features like bumper stickers, decals, and roof racks.



Join 2500+ cities using Flock Safety Attachment 4 to eliminate crime



Detect

objective evidence your police need to solve crime



Decode

footage with machine learning so your police can investigate



Deliver

real-time alerts to police if a wanted or stolen vehicle drives by

Public Safety Technology Built with Principles

You own the footage

We won't share it or sell it. It's 100% yours for your law enforcement to use to solve crime.

Protect resident privacy

All data automatically deletes by default every 30 days on a rolling basis and is encrypted with AES-256 encryption.

Promote transparency and accountability

Flock provides a transparency portal to share data with your community about how the devices work on an ongoing basis. Flock requires an investigative reason to search and proactively provides an audit report to city leadership.

Clear pricing and infrastructure free

\$2500 per camera / year. All the footage is stored in the cloud at no additional fee and there are no hidden costs.

Protect the Whole Community

It takes all community members working together to eliminate crime, which is why we created a public-private partnership that enables businesses, neighborhoods, schools, and others to partner with your city and police department to build your network.

Learn More:



"Flock Safety continues to enhance and help our police department capture these vehicles and return the assets to their owners."

-Council member Josh McCurn of Lexington, KY



About Flock Safety ALPR

Privacy and Ethics Factsheet

How does Flock Safety keep devices and data secure?

Flock Safety holds itself to the highest level of security. We have implemented the following security policies and features:

- Flock Safety data and footage is encrypted throughout its entire lifecycle. All data is securely stored with AES256 encryption with our cloud provider, Amazon Web Services.
- On-device, data is only stored temporarily for a short time until it is uploaded to the cloud, at which point it is removed automatically from the local device. This means the data is secure from when it is on the Flock Safety device to when it is transferred to the cloud, using a secure connection to Flock Safety servers. While stored in the cloud, all data (both footage and metadata) is fully encrypted at rest.
- Flock Safety defaults to permanently deleting all data after 30 days on a rolling basis, setting a new standard in the industry.

Who has access to data collected by Flock Safety devices?

- Flock Safety's customers own 100% of their data and determine who has access. Flock Safety will never share or sell the data, per our privacy policy.
- With explicit written permission from the customer, Flock Safety does have the ability to grant law enforcement access to specific footage for a short period (24 hours, 48 hours, or however long the customer desires) in the event of an investigation following a crime. Access can only be granted through the approval of the customer.
- Flock Safety has maintenance software in place to measure device performance and image capture quality. This is used to diagnose issues preemptively and schedule service calls in the event of a device malfunction or emergency.

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How long does Flock Safety keep data?

- Flock Safety stores footage for only 30 days on a rolling basis by default, after which the footage is automatically hard deleted. The only exception to this is if a democratically-elected governing body or official legislates a different data retention period.

What features do Flock Safety devices have that enable audits and oversight?

- While searching for footage or other evidence on the Flock Safety platform, law enforcement agencies must enter reason codes to verify the legitimacy of the search and create an audit trail.
- Authorized users go through training to properly use our system and communicate with their dispatch teams.
- Flock Safety customers commit not to use the data collected to work with third-party repossession companies, traffic enforcement, revenue collection, unpaid fines, or towing companies. We do not use facial recognition or capture any personally identifiable information such as name, phone number, or address, and we do not work with federal government agencies for immigration enforcement purposes.
- Flock Safety's ALPR Transparency Portal, an optional free feature for all law enforcement customers, is the first public-facing dashboard for law enforcement agencies, city leaders, and local government officials to share policies, usage, and public safety outcomes related to ALPR technology. The ALPR Transparency Portal helps promote transparency and accountability in the use of policing technology in order to build community trust while creating a safer, more equitable society.