

Flock Safety Cameras:

Introduction

Flock Safety cameras are automated license plate recognition (ALPR) technology, designed primarily to assist law enforcement in enhancing public safety and solving crimes. SPD cameras are deployed in primarily large intersections to capture vehicle data in real-time. By integrating artificial intelligence and cloud-based systems, Flock Safety provides tools that offer details of vehicle movements without requiring constant human monitoring.

What Flock Safety Cameras Are

Flock Safety cameras are specialized ALPR systems that automatically scan and record license plates of passing vehicles. Unlike conventional cameras, they are equipped with image recognition algorithms capable of identifying not just the plate number but also additional vehicle details, such as make, model, and color. The camera is solar-powered and connects via LTE networks, allowing for easy installation without the need for extensive wiring or utility dependencies. This design enables rapid deployment with minimal impact on light poles

How They Capture License Plates

The process of capturing license plates begins with cameras positioned to view the rear of vehicles. As a vehicle passes, the camera takes images using optical character recognition (OCR) and AI-driven algorithms to extract the license plate number, state of issuance, and other details. Flock enhances this by analyzing additional features such as the vehicle's make, model, color, body type, and unique modifications like bumper stickers, decals, roof racks, or damage. This creates a comprehensive "fingerprint" of the vehicle, even if the plate is obscured or missing. The system operates in real-time, day or night, thanks to infrared capabilities that ensure readability in low-light scenarios. When a flagged vehicle—such as one associated with a stolen car alert or Amber Alert—is detected, the camera instantly notifies authorized users via app or email, requiring no manual intervention.

How Data Is Stored

Data captured by Flock Safety cameras is transmitted securely to cloud storage hosted on Amazon Web Services (AWS). The company employs advanced encryption protocols, multi-layered security measures, and role-based access controls to protect information. Importantly, Flock emphasizes data ownership by the customer, typically the community or law enforcement agency—stating that it cannot share or sell the data without explicit permission. By default, footage and metadata are retained for 30 days, after which they are automatically deleted unless flagged for an ongoing investigation. This short retention period balances investigative needs with privacy considerations, ensuring that non-relevant data is not indefinitely stored. The system does not capture facial images or personal identifiers, focusing solely on vehicle-related data to minimize privacy intrusions. It should be noted that Flock cameras can be owned by private entities, such as neighborhood associations or private businesses. Law enforcement can ask for access to their data, but that private entity cannot view law enforcement data or license plate reads.

Benefits to Law Enforcement

Flock Safety cameras offer significant advantages to law enforcement by providing actionable intelligence that accelerates investigations and prevents crimes. Real-time alerts enable officers to respond immediately to hits on hot lists, such as stolen vehicles or those linked to missing persons, potentially resolving cases faster than traditional methods. The networked nature of the system grants access to a nationwide database of over a billion plate reads monthly, allowing small departments to leverage data from across the country for cross-jurisdictional pursuits. Additionally, the detailed vehicle fingerprints fill evidence gaps, aiding in building stronger cases without relying solely on plate numbers. Overall, these cameras enhance community safety by deterring criminal activity through proactive monitoring and reducing the resource burden on officers, leading to more efficient policing and higher solve rates. In summary, Flock Safety cameras have been of great benefit to the Springfield Police Department. We have been able to recover stolen vehicles quickly, some within minutes of their theft. SPD has been able to track suspects, missing persons, etc. by utilizing the Flock system. As Councilwoman Horton discussed in her town hall meeting, the Flock system was used to solve the murder of Chaviz Nguyen. Officers are utilizing this system to create hotlists of stolen vehicles, active felony warrants, etc. and are making proactive arrests by using this system.

Issues of Privacy

Any data system has the ability to be abused by users. However, all activity within the Flock system is documented. The system tracks each users keystrokes and designated system administrators can run audits on all users as needed. The data captured, vehicle license plate, make, model, and registered owner name is already stored within DMV databases.

Here is the information in bullet points:

What Flock Safety Cameras Are

- Specialized **automated license plate recognition (ALPR)** cameras that scan and record license plates of passing vehicles.
- Use AI and image recognition to identify not only the plate number but also vehicle details like make, model, color, body type, and unique features (e.g., bumper stickers, decals, roof racks, damage).
- Create a "fingerprint" of the vehicle, useful even if the plate is missing or obscured.
- Solar-powered and LTE-connected for easy, wiring-free installation on light poles or similar structures.

How They Capture License Plates

- Positioned to view the rear of vehicles.
- Use optical character recognition (OCR) and AI to read plate number, state, and other details in real-time.
- Work day or night with infrared for low-light conditions.
- Capture additional vehicle characteristics to build a detailed profile.
- Send instant alerts (via app or email) to authorized users when a flagged vehicle (e.g., stolen, Amber Alert) is detected—no manual monitoring needed.

How Data Is Stored

- Data transmitted securely to cloud storage on **Amazon Web Services (AWS)**.
- Uses advanced encryption, multi-layered security, and role-based access controls.
- Data owned by the customer (e.g., law enforcement or community), not Flock—Flock cannot share or sell without permission.
- Default retention: **30 days**, then auto-deleted unless flagged for an investigation.
- No facial images or personal identifiers captured—focuses only on vehicle data.
- Can be owned by private entities (e.g., neighborhoods, businesses); law enforcement may access private data if allowed, but private owners cannot access law enforcement data.

Benefits to Law Enforcement

- Provide real-time alerts for hot lists (stolen vehicles, missing persons, etc.) to enable quick responses.
- Access a nationwide network with over a billion plate reads monthly for cross-jurisdictional help.
- Detailed vehicle "fingerprints" help fill evidence gaps and build stronger cases.
- Deter crime through proactive monitoring, reduce officer workload, and improve solve rates.

- Specific to Springfield Police Department (SPD): Used to recover stolen vehicles quickly (sometimes within minutes), track suspects/missing persons, create hotlists for stolen vehicles/felony warrants, and make proactive arrests.
- Cited example: Helped solve the murder of Chaviz Nguyen.

Issues of Privacy

- Any data system risks abuse, but Flock logs all user activity (tracks keystrokes; admins can audit usage).
- Captured data (plate, make/model, owner name) is already in public DMV databases.
- Emphasizes short retention, no facial/personal tracking, encryption, and customer control to protect privacy.