



“Stop for Kids” Protecting Our Children in School Zones

Automated Stop Sign Camera Enforcement for Municipalities

Stop for Kids collaborated with MOBOTIX to install advanced camera solutions to protect our most vulnerable—children. The program launched in several school zones and has seen great success in reducing accidents, improving driver behavior, and increasing overall road safety.

Stop for Kids was established as a response to the alarming statistics of child pedestrian accidents in school zones. According to the Transportation Research Board, 25,000 children are injured each year in the United States in school zone accidents, with about 100 children being killed. These accidents often occur because drivers fail to stop at stop signs or are distracted while driving through school zones.

To address this issue, Stop for Kids aimed to increase driver awareness and help municipalities enforce stop sign laws using its patented AI-powered software and MOBOTIX’s advanced camera technology.

INITIAL CHALLENGES

Stop for Kids had three specific requirements when looking for a camera manufacturer:

- Enhance the readability of license plates with real-time reporting.
- Capture and accurately document contextual data such as car color, license plate details, and additional environmental factors.
- Adapt to constantly changing conditions like different state plates, lighting, and weather conditions.

While the Stop for Kids’ vision to lower school zone accidents was simple, the technical specifications were complex. Stop for Kids required a camera system with two separate Sensor Modules—one for License Plate Recognition (LPR) and another for evidence video—made syncing frames challenging.

In addition, inefficiencies in capturing synchronized data from multiple devices meant that, in some cases, frames from multiple devices were not available to be analyzed together. This resulted in inaccurate and incomplete documentation of license plate information and contextual data.

Key Data

Sector

Public Transport

Partners

Stop for Kids



Timeframe


2024

Products


M73

Get in Touch with Us

To contact Stop for Kids and learn more about their groundbreaking efforts in school zone safety, visit their website at :

 stopforkids.com/gov

If you have a complex solution and are interested in MOBOTIX’s advanced hardware, feel free to reach out to us at:

 sales@mobotix.com

FINDING THE RIGHT FIT

After assessing the initial challenges, Stop for Kids found MOBOTIX's M73 with edge computing to integrate their proprietary AI software and multi-lens capabilities to capture synchronized LPR and evidence capturing in tandem.

The M73 is equipped with two lenses, each with 4K resolution and a high-performance AI processor capable of analyzing license plates in the harshest weather conditions. This eliminated the need for separate cameras and ensured accurate documentation of license plate information.

Additionally, MOBOTIX's edge computing allowed for locally processed data to be instantly transmitted to Stop for Kids' central database, providing real-time analysis and reporting.

Specific highlights of this solution include:

- **Single-Camera Solution:** Unlike other manufacturers, MOBOTIX required only one camera to achieve both LPR and evidence video, eliminating synchronization issues.
- **AI Integration:** The camera's connectability means stronger AI integrations with tools like Stop for Kids' proprietary AI software.
- **Compact Design:** The small footprint of the M73 made it suitable for residential areas without being intrusive.
- **Durability:** Engineered to withstand various weather conditions and temperatures in the Northeast United States.
- **IoT Capabilities:** The camera's IoT features enabled real-time data collection and analysis on the edge, supported by robust cybersecurity measures to prevent hacking.
- **ONVIF Compliance:** Ensuring seamless integration with other platforms and devices.

IMPLEMENTATION AND OUTCOMES

The collaboration between MOBOTIX and Stop for Kids has yielded significant improvements in monitoring and safety across various school zones and municipalities. With the deployment of the M73 cameras, Stop for Kids has been able to enhance its capabilities in capturing and analyzing license plate recognition (LPR) data and incident evidence.

This technological integration has not only streamlined the process of monitoring traffic violations but has also provided immediate insights into real-time situations, improved driver behavior, and provides a more responsive and safer environment for children. The centralization of data through MOBOTIX's edge computing solutions has empowered Stop for Kids to act swiftly and efficiently, reinforcing their mission to protect students and improve safety standards in school zones.

KEY OUTCOMES

- **Improved Compliance:** Prior to the installation, only about 3 out of every 100 cars complied with stop signs in the targeted school zones. Post-installation, compliance soared to about 95 out of every 100 cars.
- **Enhanced Safety:** The initiative significantly boosted safety in residential and school zones, reducing traffic violations and improving driver behavior.
- **World's First AI-Based Stop Sign Enforcement:** The program marked a pioneering step with the world's first AI-based camera enforcement for stop signs, surpassing competitors who relied on less effective radar-based systems.

Stop for Kids has drastically reduced traffic violations and enhanced the safety of children in critical areas. Its offender-funded model also ensures there is no cost to municipalities or taxpayers. This initiative not only underscores Stop for Kids' commitment to protecting the well-being of students but also highlights their role as pioneers in employing AI for traffic enforcement.

As they continue to monitor compliance and gather valuable data, Stop for Kids sets a new standard for safety measures in school zones, promising a brighter, safer future for communities worldwide. By utilizing MOBOTIX's cutting-edge technology, they have demonstrated the potential for innovation and improvement in traffic management systems. This success story serves as a testament to the powerful impact of AI-based solutions in creating safer environments for all and Road Safety-as-a-Service.





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