

## FEATURED SOLUTION

BV 5030 weapons detection system with AI for scanning student backpacks and personal items

#### **MARKET**

**School Security** 

#### **APPLICATION**

Weapons, vape, and prohibited item detection

LINEV Systems' solutions secure schools without disrupting learning environments

## **OBJECTIVE**

In response to increasing concerns over school safety districtwide, Schenectady City School District (Schenectady, NY) resolved to take proactive measures to enhance school security. After reviewing recent violent occurrences at schools and seeking feedback from students, staff, parents, and community members, district leadership determined the need to implement a state-of-the-art weapons detection system across the district. This case study outlines the district's efforts, the approach taken, and the positive outcomes observed.







#### **BACKGROUND**

Following two occurrences of loaded firearms being brought into middle schools in December of 2023 and an incident where a student pulled a knife and stabbed a classmate in September of 2024, parents, staff, community members, and students began to express concerns that future violent altercations could occur unless proper measures were taken to ensure the safety of children and staff.

"Traditionally, Schenectady was a district where the community felt there was no need for weapons detection. That's not OUR city," said Jeffrey Russo, District Director of Climate and School Safety and project lead. "There was a lot of pushback. There were a lot of people who felt it was unnecessary. Having a couple incidents highlighted the fact that violence and weapons are in every community...these incidents really hit home and started the conversation at our District Safety Committee level about whether or not it was something we should start to look at."

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A survey was distributed to staff, students, parents, and other community members, confirming that perception had shifted, as the majority were in favor of the district purchasing weapons detection for schools. While conducting feedback collection from all stakeholders, they simultaneously applied for a COPS SVPP grant to help fund a system should they choose to move forward.

To continue to engage key stakeholders in the selection of advanced security detection systems for the schools, school leadership organized a "Safety Fair" for the community (students, faculty, teachers) which would feature security solutions from 11 different companies. Among the products featured, the LINEV Systems' BV 5030 backpack scanner was one of the standout solutions.



"I felt like LINEV brought me the scanner that I was looking for. It had the speed, it had the AI technology, it kept a person in the loop...it had what I was looking for in a scanner," said Russo after making the decision to partner with LINEV Systems. "We're looking to get to zero instances of weapons in the buildings. Not just firearms, I want to make sure we have no knives, pepper spray, brass knuckles or anything else...We know there's a problem and we know that [the purchased BV5030s] are going to help us address that problem."

#### **RESULTS**

In the 2023-2024 school year, Schenectady High School experienced 45 incidents where knives were found smuggled into the school by students. With approximately 42 weeks in the school year, that put the average around one incident per week. After implementing the LINEV Systems BV 5030 baggage scanner with AI, the school began to observe a starkly different trend.





"We put this system in place in the middle of the 2024-2025 school year, January 2025," said Russo, discussing Schenectady High School implementation in a follow up interview. "Since January 1st, we've had one incident where a knife was located on a student within the building. When tracked on camera, we were able to determine how that happened and that the knife did not pass through in a bag that was scanned. We've had 22 incidents in 24 weeks since implementation where people have been caught with a weapon at the weapon screening station and scanners. I would certainly call this a success."

While the BV 5030 scanners have proven their efficacy in detecting weapons found in student bags, there are several other benefits the school has experienced from the deployment of the machines:



# **OBSERVED BENEFITS**





**High Throughput** 

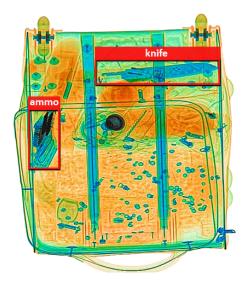


Portable Solution

**Deterrence:** Not only has the machine detected prohibited items at school entrances, but it has also served as a deterrent for any students considering bringing illegal and prohibited items to the school. "We've seen students on camera turn away to get rid of items before they enter into the school" reports Russo.

High Throughput: After modifying student arrival times and bus schedules, the school observed that the deployed BV 5030s could process around 2500 students before school starts, enabling a secure space without disrupting the learning environment.

Compact and Portable: Unlike other baggage scanners on the market, the school found that the LINEV Systems BV 5030s were a more compact, and



easy-to-move solution. "Honestly, it really is portable. It really is storable. Anywhere I can wheel it to, I can store it. It's not that big, and I think less big is less intimidating when it comes to a school," said Russo.

#### CONCLUSION

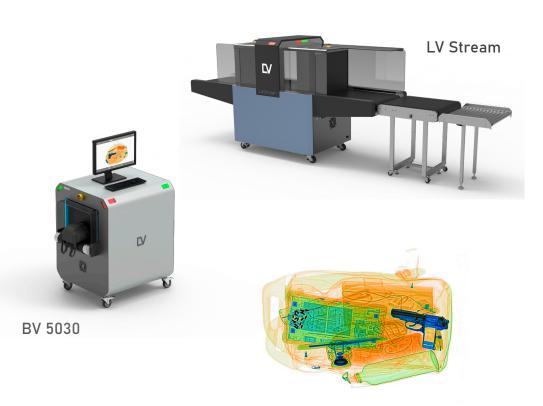
Schenectady School District's decision to implement LINEV Systems weapons detection systems has proven to be a successful initiative in enhancing school safety. After the successful pilot program at Schenectady High School, the district has deployed more machines paired with metal detectors in their middle schools to continue to bolster security districtwide. "We had never done any form of screening before this. It took about 3 weeks to master the training at the high school. It then took less than 2 days to fully implement and train all middle school staff, " said Russo. "The rollout was easy once we knew what we were doing."

By utilizing cutting-edge technology and engaging the community, the district has effectively addressed concerns about school violence while maintaining a conducive learning environment. The district's approach can serve as a model for other school districts looking to balance safety and privacy without compromising school operations in the face of growing security concerns.



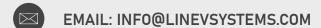
## **ABOUT LINEV SYSTEMS**

LINEV Systems provides advanced X-ray scanning technology designed to keep schools and educational campuses safe. The company's weapons detection solutions are trusted by school administrators, safety officers, and security professionals for their efficiency, accuracy, and ease of use. With products deployed in over 40 states, LINEV Systems helps create secure learning environments where students, staff, and visitors can feel safe. When it comes to school safety, LINEV delivers reliable protection students and staff can count on.











HEADQUARTERS: CONROE, TX