

Grant-Award**Durham County****Program Area: Law Enforcement Programs****Summary**

Virtual reality (VR) training technology represents a transformative advancement in law enforcement education, offering immersive, scenario-based experiences that enhance both skill development and decision-making. The proposed VR system includes head-mounted displays, software with a wide range of law enforcement training modules, and instructor controls that allow scenarios to be customized, paused, and reviewed in real time. These systems can replicate high-risk, low-frequency incidents as well as routine interactions, enabling trainees to practice communication, de-escalation, use-of-force judgment, and critical thinking in a safe and controlled environment. Unlike traditional training methods, VR provides immediate feedback and performance analytics, allowing instructors to tailor instruction to individual needs while reinforcing best practices. This technology is adaptable for multiple audiences, including community academy participants, basic law enforcement trainees, and certified officers requiring ongoing professional development.

The implementation of VR training directly aligns with the goals of the Durham County Sheriff's Office's newly approved training facility, which is designed to serve as a centralized, modern training hub for the agency. As the primary location for firearms and public safety training, the new facility presents a unique opportunity to integrate cutting-edge technology that enhances readiness while promoting safety and accountability. VR training complements live-fire exercises by allowing officers to develop judgment and decision-making skills before engaging in real-world applications. This layered approach improves training outcomes by reducing risk, conserving ammunition and resources, and ensuring that officers are better prepared for complex, dynamic situations.

Additionally, VR supports the agency's commitment to community-oriented policing by offering scenarios that emphasize communication, cultural awareness, and crisis intervention. Community academy participants can gain a deeper understanding of the challenges officers face, fostering transparency and trust between law enforcement and the public. For sworn personnel, VR provides a consistent and repeatable platform to reinforce policies, adapt to emerging best practices, and meet evolving training standards. The flexibility of VR technology also allows the Sheriff's Office to quickly update or expand training content in response to new legal requirements, community concerns, or identified gaps in performance.

By incorporating VR into the new training facility, the Durham County Sheriff's Office will position itself at the forefront of modern law enforcement training, regardless of the seasons, conditions, or time of day. This investment not only enhances the effectiveness and efficiency of training programs but also demonstrates a proactive commitment to innovation, officer safety, and community engagement. Ultimately, VR technology will serve as a force multiplier—maximizing training opportunities, improving decision-making under stress, and ensuring that personnel are equipped with the skills necessary to serve the residents of Durham County with professionalism and integrity.

Problem Statement*Training Division*

The Durham County Sheriff's Office faces a critical need to modernize its training capabilities to meet the increasing complexity of law enforcement responsibilities and community expectations. Current training methods rely heavily on traditional classroom instruction and live-fire exercises, which limit the agency's ability to safely and consistently prepare personnel for high-risk, low-frequency incidents. These limitations reduce opportunities for officers to practice de-escalation, communication, crisis response, and use-of-force decision-making in realistic but controlled environments.

The Sheriff's Office recently secured approval for a new centralized training facility; however, the facility lacks the advanced technology necessary to deliver modern, scenario-based instruction. Without updated tools, the agency cannot fully replicate the dynamic situations officers encounter in the field, nor can it provide the immediate feedback and performance analytics required to reinforce best practices and adapt to evolving standards. This gap affects not only sworn personnel but also new recruits and community academy participants, who benefit from consistent, high-quality training that promotes transparency and trust.

The absence of immersive, adaptable training technology limits the agency's ability to prepare staff for complex encounters, reduces opportunities to strengthen community-oriented policing skills, and constrains efforts to improve officer readiness, safety, and accountability. To address these challenges, DCSO requires modern training solutions that can simulate real-world conditions, support data-driven instruction, and enhance the overall effectiveness of its training programs.

Project Implementation/Design

The Durham County Sheriff's Office will implement virtual reality (VR) training technology through a phased, structured approach that ensures effective deployment, instructor readiness, and long-term sustainability. The implementation plan aligns with the operational goals of the newly approved training facility and supports the agency's broader commitment to modern, data-driven training.

Phase 1: Procurement and System Setup

- Acquire VR head-mounted displays, training software modules, instructor consoles, and required accessories.
- Coordinate with the vendor to complete system installation within the new training facility.
- Conduct initial system testing to ensure hardware and software functionality, connectivity, and safety compliance.

Phase 2: Instructor Certification and Curriculum Integration

- Select training staff to serve as VR instructors and facilitators.
- Complete vendor-led instructor certification, including scenario customization, performance analytics, and after-action review tools (if applicable).
- Integrate VR modules into existing training curricula, including de-escalation, crisis intervention, communication, and use-of-force decision-making.

- Develop standardized lesson plans and evaluation rubrics to ensure consistency across training cohorts.

Phase 3: Pilot Training and Evaluation

- Launch a pilot training cycle with a small cohort of deputies, detention officers, and training academy recruits.
- Collect performance data, instructor feedback, and participant evaluations to assess usability, scenario relevance, and training impact.
- Adjust scenario selections, difficulty levels, and instructional methods based on pilot findings.

Phase 4: Full Deployment Across the Agency

- Expand VR training to all sworn personnel, new recruits, and community academy participants.
- Implement recurring VR training sessions as part of annual in-service requirements.
- Use performance analytics to identify skill gaps, reinforce policy compliance, and tailor training to individual or unit-level needs.

Phase 5: Ongoing Maintenance, Updates, and Program Expansion

- Maintain hardware and software through vendor support agreements.
- Update training modules to reflect new legal standards, community concerns, or emerging best practices.
- Expand scenario offerings to include mental-health response, cultural-awareness interactions, and high-risk tactical situations.
- Conduct annual program evaluations to measure training effectiveness, officer readiness, and community-engagement outcomes.