



# Soft Target Engineering to Neutralize the Threat Reality (SENTRY)

A Nationwide Consortium Led by Northeastern University

## A DHS Center of Excellence

Led by Northeastern University, SENTRY develops strategies and innovative solutions to secure soft targets and crowded places from targeted attacks that inflict grave injury to human life and property. These soft target environments, such as schools, surface transportation, sports arenas, places of worship, large outdoor events, and retail facilities, often have limited security or protective measures, making them vulnerable to attack. SENTRY is developing next-generation tools and methodologies to predict and mitigate these threats. A key aspect of the SENTRY strategy is the development of a real-time decision support system, a Virtual Sentry Framework, that can be used by the stakeholders of soft target venues and crowded places to help defeat attacks.

### Research Capabilities

- Real-time management of threat detection and mitigation
- Advanced sensing technologies for threat awareness
- Threat risk assessment, prediction, and deterrence
- Layered security architectural design and simulation

### Workforce and Professional Development

- Community college engagement
- Minority Serving Institution collaboration
- Student leadership
- First responder training

## About SENTRY

LAUNCH	2021
PARTNERS	More than 40 universities, 10 industry partners
MISSION & VISION	To ensure the existence of safe, secure public spaces by creating functional and adaptable solutions to detect and mitigate targeted violence. The cornerstone of this vision is the Virtual Sentry Framework. The SENTRY mission is two-fold: to conduct stakeholder-informed research to better secure soft targets and crowded spaces; and to educate the current and future homeland security workforce in this space.
DHS ALIGNMENT	DHS Science and Technology (S&T), Cybersecurity and Infrastructure Security Agency (CISA), Transportation Security Administration (TSA), Customs and Border Protection (CBP), Federal Law Enforcement Training Center (FLETC), U.S. Secret Service (USSS), Countering Weapons and Mass Destruction Office (CWMD), Federal Emergency Management Agency (FEMA), U.S. Coast Guard (USCG)

### Feedback from Our Partners

"The CISA School Safety Task Force and SENTRY began a collaborative effort to address issues confronting K-12 schools. This partnership will provide K-12 schools across the country with access to better resources and technologies to ensure children can learn in safe, secure, and supportive learning environments."

**Dr. David Mussington**, Executive Assistant Director for Infrastructure Security, Cybersecurity and Infrastructure Security Agency (CISA)



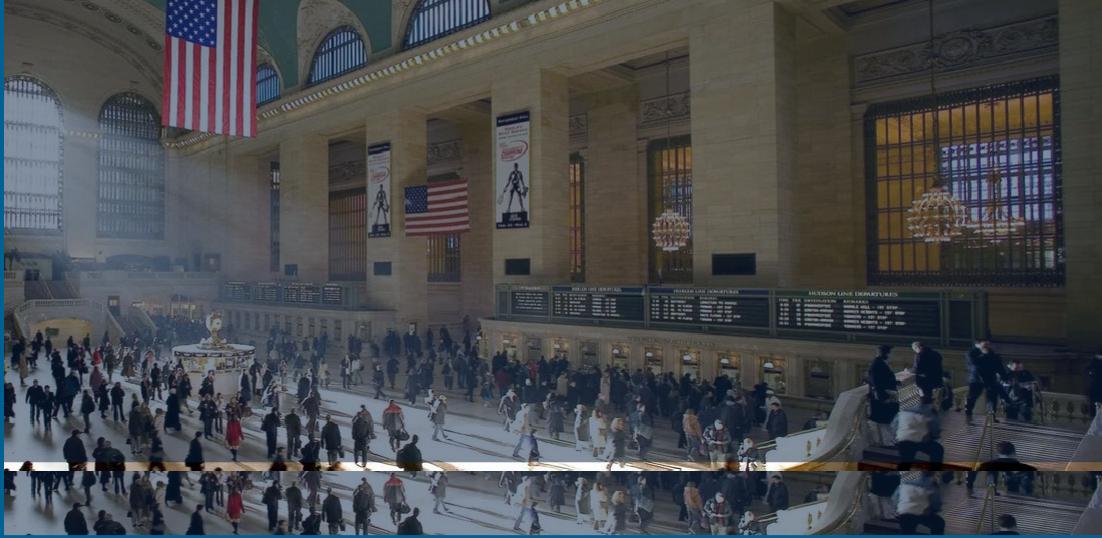
## University and Educational Partners

American Mathematical Association of Two-Year Colleges  
Boston University  
Bryn Mawr College  
Champlain College  
City University of New York (CUNY)\*  
Estrella Mountain Community College\*  
Fitchburg State College  
Indiana University of Pennsylvania  
Lucerne Community College  
Montclair State University  
North Carolina Central University\*  
Northern Arizona University  
Rensselaer Polytechnic Institute  
Rutgers University  
Southwestern University  
Tennessee State University\*  
Texas Southern University\*  
Tufts University  
United States Coast Guard Academy  
United States Naval Academy  
University at Buffalo, the State University of New York  
University of Delaware  
University of Florida  
University of Northern Arizona  
University of Notre Dame  
University of Puerto Rico-Mayagüez  
University of Rhode Island  
University of Southern California  
Utah Valley University  
Winona State University

\*Minority Serving Institutions

## Industrial Advisory Board

Astrophysics Inc.  
BLOCK Engineering  
Cambridge Consultants  
EVOLV  
Guardian Centers  
Leidos  
Matrix Space  
NEC Laboratories America  
PENDAR Technologies  
Raytheon Technologies



## Impacts

### Virtual Sentry Framework



A long-range goal of the Center is to provide real-time decision support systems, enabling actionable situational awareness leading to more effective threat assessment, preparedness, mitigation, and response for soft targets and crowded places. The framework strives to lessen the security response burden on venue personnel and to provide essential security information in an effective, timely, and actionable way.



### Developing Venue Specific-Solutions

SENTRY has launched a series of case studies to understand the security needs of specific soft targets and crowded places. The intent is to develop a pragmatic understanding of the needs associated with specific venues and how those needs translate into an implementation of the Virtual Sentry Framework. SENTRY plans to develop the case studies for soft target venues such as schools, passenger-based surface transportation, sports arenas, places of worship, outdoor events, and retail facilities. SENTRY's Practitioner Advisory Board is composed of authorities who share their deep expertise in securing multiple soft target venues from attacks.



### Workforce and Professional Development

SENTRY workshops, conferences, and events expose students, faculty, and researchers to professional development opportunities and open the door for government and industry professionals to learn about the Center's latest research. SENTRY works to enhance broader participation of underrepresented groups in STEM fields, higher education, and the Homeland Security Enterprise.



For more information on SENTRY, please visit:

<https://sentry.northeastern.edu/>