



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.

About SENTRY

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

LAUNCH

2021

PARTNERS

More than 30 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 three-fold: to conduct stakeholder-informed research to better secure soft targets and crowded spaces; implement the Virtual Sentry Framework strategy; and 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 (USGC).

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



For more information on
SENTRY, please visit:
<https://sentry.northeastern.edu/>



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.