

## Introducing CRG's MuST-3D (Multi-Sensory Detection, Deterrence, and De-escalation) System

MuST-3D is a non-lethal deterrence hardware-software solution that can be integrated into manned or autonomous security vehicles to discourage intruders and potential threats from entering a perimeter or doing harm to a facility or population. MuST-3D's artificial intelligence (AI) translates sensor data into action through the following steps:

1. Detects and tracks intruders
2. Estimates the level of threat posed by the intruder(s)
3. Automatically directs an appropriate level of non-lethal force at the threat

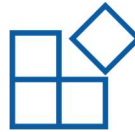
MuST-3D utilizes commercial off-the-shelf (COTS) multimodal non-lethal hardware and has a flexible design to allow for addition or replacement of non-lethal hardware to suit customer needs. MuST-3D can operate day or night in all weather conditions.

The MuST-3D system offers the following features:



### Machine Learning

Utilizes deep learning-based computer vision and machine learning



### Flexible Modular Design

Adapts to different vehicles and use-cases and allows for addition or replacement of non-lethal hardware



### Future Integration Potential

Integrates into existing manned and unmanned systems and can use onboard sensors for detection and tracking



### Manual/Automatic Modes

Operates in manual or automatic modes



### Non-lethal Deterrence

Estimates the threat level and responds with an appropriate level of non-lethal force to deter and repel intruders

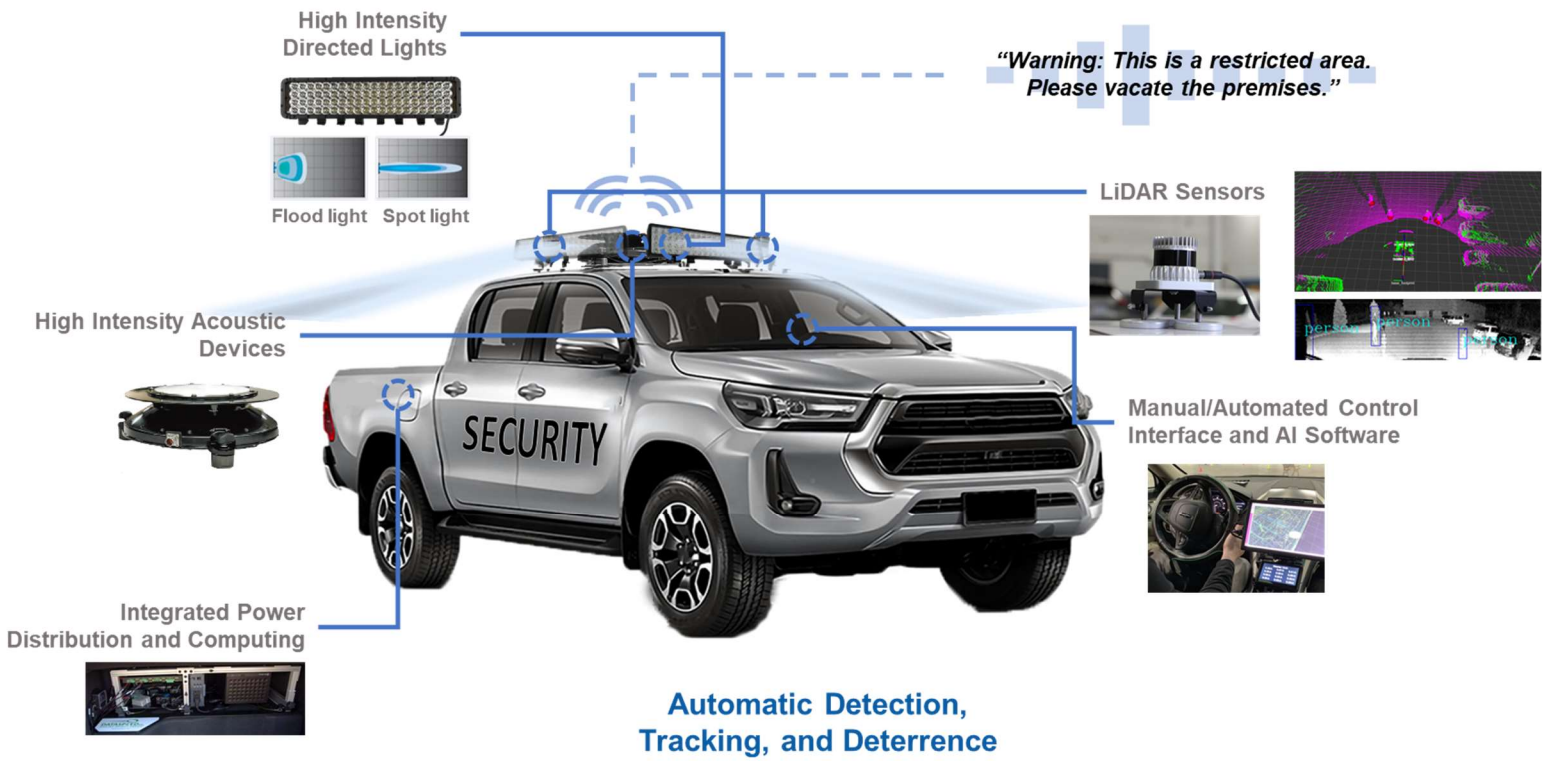


### Low Cost & Complexity

Leverages COTS components and existing technology to provide an affordable solution

# Detect, Track, and Deter Humans or Pests

via sensors, Artificial Intelligence algorithms, and non-lethal devices like high intensity lights and acoustics



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Technology Readiness Level:  1  2  3  4  5  6  7  8  9

Manufacturing Readiness Level:  1  2  3  4  5  6  7  8  9  10

Interested in learning more about CRG’s technology?  
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