



**OFFICE OF SCIENCE & TECHNOLOGY**

**Passive Millimeter Wave Camera for  
Concealed Weapons Detector**

***Project Description:***

The National Institute of Justice is sponsoring Trex Enterprises to develop a portable weapons detector that will be able to remotely scan groups of individuals for metallic and nonmetallic weapons using a passive millimeter wave (MMW) imager. The system monitors the difference in heat energy emitted, in the MMW spectrum, from the body of an individual and objects that they are carrying. These differences can be captured in images providing a visual representation of those objects. As this is a passive device, it poses no health risks. This leverages work by Trex for the US Army in development of a MMW sensor to enable helicopters to land safely in inclement weather.



**Laboratory  
Prototype**



**Concept of Future  
Configuration**

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***Status:***

Trex Enterprises successfully demonstrated a Laboratory prototype at the Air Force Research Laboratory - Rome, NY Research Site, in Sept. 2000. Current efforts seek to improve the sensitivity of the system and to develop a functional prototype suitable for operational evaluation. Delivery of these prototypes should occur in the Summer of 2003.

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