IR SCOUT

Scouting Hazardous Environments With Thermal Imaging

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First responders, law enforcement, and military are tasked with entering dangerous, often unknown environments on a daily basis. Moreover, many of these dangerous situations present environments with limited or no visibility. Due to this lack of visibility, the people entering these environments are less likely to gain an accurate understanding of their surroundings. The IR Scout addresses these issues by performing remote, thermal reconnaissance of hazardous environments.

The IR Scout is a highly durable sensor package that wirelessly transmits high-quality, thermal images to a remote user. The system is composed of a throw-able sensor package and a laptop that displays the thermal images. The device requires minimal user operation: simply turn it on and throw it into the area of interest. Once the sensor package reaches a stable position, the appropriate cameras on the device each snap an infrared image and wirelessly transmit the data to a laptop. The laptop then performs the necessary image processing to display multiple images neatly on the user interface. With these features, the IR Scout provides first responders with knowledge of a hazardous environment prior to entering, regardless of visibility.

The IR Scout: throw-able, sensor package (left) and the thermal image displayed in full screen mode (right)