



Awards:

IDEA Bronze

**Frost and Sullivan Product
Innovation Award**

Handheld Hero

The Ahura FirstDefender, a hand-held instrument that identifies any substance, is a literal lifesaver. It has become a standard tool for emergency teams around the world. Sales from the product have doubled every year since its introduction.

Productizing Sophisticated Technology

Ahura Scientific specializes in elemental identification and verification using miniature optics and electronics. When the company was exploring options for commercializing their semi-conductor technology for analyzing material properties, it called upon Altitude. Our team identified the most likely end users as first responders: non-technical emergency personnel dispatched to a crime scene or disaster site. These firefighters, law enforcement officers, investigators, and soldiers wear bulky hazmat gear and must contend with extreme, stressful conditions to identify potentially hazardous substances. Ahura's highly complicated and fragile technology had to be delivered in a robust format, with an intuitive interface and immediate results.

Delivering Value: Portable Lab, Critical Results

Altitude's research also found that existing spectrometers were bulky, sensitive instruments best suited to the laboratory, not the field. FirstDefender is quite different. It is lightweight yet rugged. Large, well-lit controls make it easy to use, even when the operator is wearing three-layers of gloves. Most importantly, it provides instant, accurate results, identifying dangerous substances like narcotics, explosives, and toxic industrial chemicals even through the walls of their containers or in spills on the ground. Samples may be analyzed directly from the surface, or collected in a vial and inserted into a concealed compartment. Rescue squads no longer need to wait for lab results, and can take containment action much more quickly. The FirstDefender's reputation as a lifesaver has not only made it popular with first responders, but has also attracted the attention of Hollywood. Since its debut, the bright orange version of the tool has appeared on several episodes of CSI.