

## **FINDER IN 100 SECONDS!**

When disaster strikes — and buildings collapse — trapping people in the rubble — Search and rescue teams have one focus.

MARK LUCAS: Speed is everything. As the victims have time go by, they're less likely to survive because of injuries or just simple entombment, dehydration, things like that.

Speeding up search and rescue operations was the goal when the DHS Science and Technology Directorate and NASA's Jet Propulsion Laboratory began developing FINDER.

JAMES LUX: The FINDER is a radar that sends a low- power microwave signal through the rubble. It looks for the very tiny reflections caused by the motion of the victim's breathing and heartbeat.

FINDER can detect heartbeats and breathing through 30 feet of debris or 20 feet of solid concrete, and it readily distinguishes between human and animal heartbeats. Weighing less than 20 pounds, it's easy for first responders to carry and operate, and, from a safe distance, scans a broad area of debris in about a minute.

JOHN PRICE: Right now the system scans a pile in 30 seconds, takes 30 seconds to analyze it and determine, for a large scale area, if there are any human heartbeats in there—if anyone is alive.

Safer, faster searches are the Holy Grail of search and rescue operations worldwide.

MARK LUCAS: Speed. I think that's the ultimate thing that we have here. Victims don't last very long in a rubble pile – and this device here I'm hoping will cut that time drastically, and we'll be able to have some people survive.

For more information, visit us on [FirstResponder.gov](http://FirstResponder.gov)