



**CRANE**

## Innovation Infosheet

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### Portable Cutting Device

**Track Code:** CRANE-99261

**Categories:**

- Electrical Engineering
- NSWC Crane

**Keywords:**

- Battery-free
- Crane
- Electronics
- First Responder
- Lasers
- Law Enforcement

Current barrier breaching methods include devices that are limited to areas where they can be connected to the power grid or devices that are purely mechanical such as a battering ram.

Naval Surface Warfare Center, Crane Division (NSWC Crane), has been a leader in novel uses of high power fiber lasers and ultra-short pulse lasers for the last decade. NSWC Crane has developed and patented a portable laser cutter that can be used to cut through most materials.

In the Portable Cutting Device, a laser has been married to lithium-ion batteries to create a portable laser system that is strong enough to cut through metal and other materials. Unique features of this system include the self-contained battery pack that allows for portability, the device's small size allows individuals to carry and its ability to cut through metal such as car wrecks, doors, or other obstacles.

**Advantages:**

- Self-contained
- High-powered laser system
- For use in hard to access locations and/or spatially-restrictive locations

**Potential Applications:**

- First Responders
- Firefighters
- Law Enforcement
- Military

- Remote Cutting
- Barrier Breaching
- Welding
- Underwater Applications

**People:**

- Bradley, Timothy (Project leader)
- Hillenbrand, Eric

**Intellectual Property:**

**Application Date:** July 28, 2009

**Type:** Utility Patent

**Country of Filing:** United States

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