

PATENTS  
PENDING

# COUNTER-UAS SOLUTIONS



Battelle's counter-unmanned aircraft systems (C-UAS) expertise is built on a long history of innovation in communications, electronic warfare and countermeasures, and a strong understanding of evolving customer needs. In response to the real dangers posed by commercial small UAS, to government agencies, officials and assets, Battelle has created a C-UAS focus area, including the DroneDefender® series of products and engineering advisory services to help our partners stay ahead of adversaries.

## THE CHALLENGE

While once used mostly by the military, small UAS, or drones, are now widely available. With increased availability comes increased risk.

Yet, traditional defense mechanisms against UAS, such as shooting them down, are not tenable within the U.S. under current regulations. And the proliferation of drones overseas demands an effective and easy to deploy solution. So how can agencies of the federal government defend against drones and their associated threats and protect what matters most?

## TECHNOLOGY SOLUTIONS

Battelle DroneDefender® systems are non-kinetic C-UAS solutions developed to instantaneously defend airspace against commercial drones without compromising safety or risking collateral damage. The systems quickly disrupt an adversary's control of a drone, neutralizing it so that no remote action, including detonation, can occur, minimizing drone damage and risk to public safety.

**Handheld Unit** – The DroneDefender handheld units are portable, intuitive and man-in-the-loop. The system employs two different defenses to disrupt unwanted UAS—remote control disruption and GPS disruption.

## Benefits

Protecting what matters most is Battelle's priority. Unidentified UAS can pose a serious risk to government agencies and officials — both military and civilians — but Battelle has solutions. The DroneDefender systems couple innovative technology with efficient design for safe, reliable drone defense, right at your fingertips.



A simulation of the handheld DroneDefender V2 device being used to counter a small drone.

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**Ground-based Unit** – The DroneDefender ground-based system leverages the technology developed for the handheld system for a more capable cUAS solution. The remote control defeat capability can be paired with a detection and tracking system and integrated with almost any 360° positioner. By mounting the disruption capability on a mechanical positioner, the ground-based DroneDefender system utilizes significantly amplified power, increased antenna gains, and the precision aim-point of the positioner to neutralize UAS threats at much greater distances than the handheld version.

**C-UAS RESEARCH AND DEVELOPMENT SERVICES**

Extensive work fielding technology in this area has provided Battelle valuable insight into operational needs, challenges and ever-evolving threats.

Battelle uses this knowledge to support continuous, rapid upgrade of its proprietary systems and to offer engineering advisory services to help the U.S. government and their allies stay ahead of adversaries on the battlefield.

*Note: This device has not been authorized as required by the rules of the Federal Communications Commission before it can be marketed to non-Federal users. This device is not, and may not be, offered for sale or lease, or sold or leased in the United States, other than to the United States government and its agencies, until authorization is obtained. Under current law, the DroneDefender device may be used in the United States only by authorized employees of the Federal government and its agencies, and use by others may be illegal.*

Every day, the people of Battelle apply science and technology to solving what matters most. At major technology centers and national laboratories around the world, Battelle conducts research and development, designs and manufactures products, and delivers critical services for government and commercial customers. Headquartered in Columbus, Ohio since its founding in 1929, Battelle serves the national security, health and life sciences, and energy and environmental industries. For more information, visit [www.battelle.org](http://www.battelle.org).

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ID 588 09/17



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