

AMULET Robot-Mounted Mine Detection System for EOD and Search Applications



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Cobham Antenna Systems

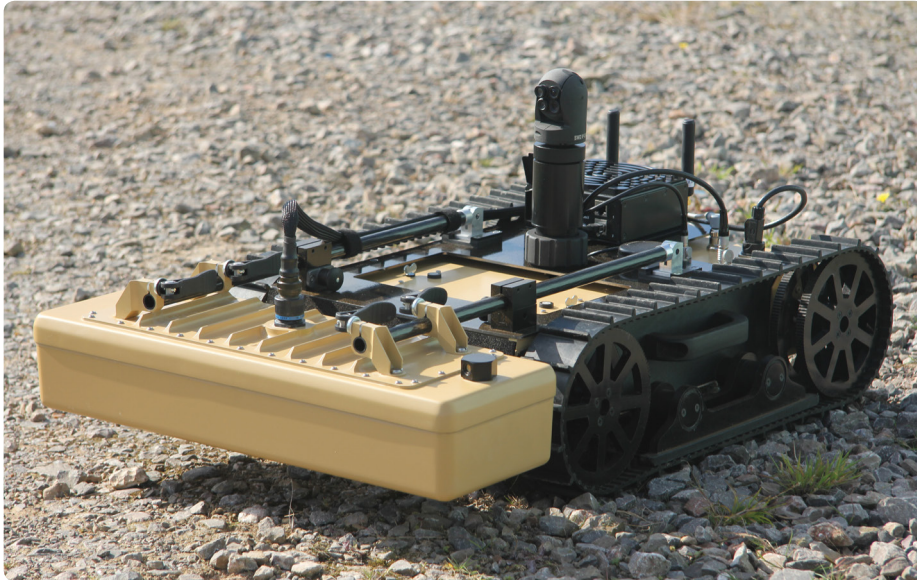
The most important thing we build is trust



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Protecting lives and livelihoods

Cobham has developed the AMULET standoff buried threat detection system, which can be integrated onto any tactical remote-controlled vehicle (RCV) or robot platform. The system is suitable for rapid area clearance and capable of detecting both IEDs and traditional Anti-Tank (AT) mines.

AMULET Detection System

The AMULET system will detect a wide range of buried metallic, minimum-metal or non-metallic threat types. Customer demonstrations can be provided using a host JAGUAR robot from Dr Robot.

The AMULET system comprises a 4-channel QuadPack Ground-Penetrating Radar (GPR) sensor, a remote controlled High Definition (HD) camera, a control box (all of which are mounted on the host robot) and a Trimble Yuma which acts as a wireless Operator Control Unit (OCU).

A 4-channel QuadPack GPR module provides a 50cm detection swathe. This is scalable and additional QuadPacks can be added to the system to increase swathe width as required. The system can also include an innovative lane-marking system and differential GPS data collection. These additions allow a safe lane to be marked by the robot when route-proving is

required through vulnerable threat points or post-conflict mine-contaminated land.

AMULET is a lightweight detection system, designed to be man-portable and deployed by a single operator. The GPR detection technology within the QuadPack sensor is based around the operationally proven Cobham GPR incorporated within the highly successful MINEHOUND handheld detector.



i The AMULET system protects lives and livelihoods by removing the operator from the point of threat detection.

Easy to use

The whole system is very easy to operate with intuitive controls and clear audio and visual threat indications. The camera video feed, threat indications and control data are all provided over secure communication links.

Simple to train

AMULET is also very simple to train. Cobham can additionally provide a virtual-reality (VR) training system to support AMULET deployments. These VR trainers provide a number of instructor-configurable representative scenarios. Different buried threat-types can be positioned within a fully synthetic environment and presented to students prior to operational use.



Ground-Penetrating Radar (GPR)

Cobham Antenna Systems has over 30 years experience of developing advanced Ground-Penetrating Radar (GPR) detection systems to support Counter-IED and mine clearance operations. These high-performance systems are designed for the most demanding military and humanitarian requirements, and include both handheld and vehicle/robot-based products. These systems have been used across the world in a variety of terrains and ground conditions which builds upon a significant understanding of leading-edge GPR technology, soil physics and end-user requirements.