



 ROBOTICS

 **AGT**  
Applied Geo Technologies, Inc.

# AGT MULTI-FUNCTION AGILE REMOTE CONTROL ROBOT

When it comes to developing the best, first-line detection platform for conducting IED sweeps, AGT turned to the experts—combat Soldiers on the ground in Afghanistan and Iraq. Using customer feedback, expertise and real-world needs as our guide, we developed the Multi-function Agile Remote Control Robot, or MARCbot IV-N. Individual Army units tell us the MARCbot significantly reduces their personal risk while performing dangerous, yet routine explosives sweeps in the field.



With more than 1,300 MARCbots in use by currently deployed U.S. Army and U.S. Marine Corps troops, this robot is designed to save lives—and save costs. The MARCbot is comprised of Commercial Off The Shelf (COTS) items, making it as little as one-tenth the cost of a comparable articulated unit.

As your partner in success, our goal is to deliver the absolute highest quality materials, methods and implementation across the board, in the safest, fastest and most cost effective manner possible. It's a strategy that has earned us countless accolades from the highest levels of industry. And it's a philosophy that guides everything we do.

## BATTLE PROOF DESIGN

Starting with a high-end, commercially available remote control device, AGT performs significant modifications to “harden” the unit for the combat environment. We upgrade existing axles, bearings, and other mechanized components, then add an articulated control arm and LED camera. In all, we perform 269 separate reinforcements per finished MARCbot—including 57 machine metal pieces and 35 wiring harnesses.

## REMOTE DETECTION

Using 15 foot antenna extension mounts on the Operator Control Unit (OCU), the MARCbot allows Soldier operators to perform IED sweeps from within an armored vehicle or at a safe distance behind cover. Once detected by the robot, unit members can then disable the IED. Unlike the Series V unit currently in development, the MARCbot IV-N is intended for small units on patrol, and is not designed to communicate with central command.

## ADAPTABLE USES

Armed with a low-light camera and LED array, the MARCbot offers excellent nighttime mission capability for inspecting suspicious objects other than IEDs. It has also been successfully field modified by some units to carry weaponry, such as Claymore mines, into areas of suspected ambushes. It can also be used for pipe or cave crawling for underground surveillance and under-vehicle inspections at security checkpoints.

## FLEXIBLE LINE OF SIGHT

The MARCbot uses an articulated control arm to allow Soldier operators to view suspicious objects from a wide array of different angles. The unit has a range of 300 meters line of sight and 150 meters non-line of sight.



## SPECIFICATIONS

**WIDTH :** 19 inches

**HEIGHT :**  
13.5 inches (Camera Arm Retracted)  
35 inches (Camera Arm Extended)

**LENGTH :** 24 inches

**ROBOT WEIGHT :** 35 lbs

**GROUND CLEARANCE :** 4 inches

**ROBOT SPEED :** 5 mph

**ARTICULATED ARM :** up to 45-47 inches raised and tip up to 24-26 inches forward of robot front edge

**PAN-TILT CAMERA :** fixed-focus, high-resolution, low-lux, color camera

**CAMERA FORWARD PROJECTION (EXTENDED) :** 24 inches

**OPERATOR CONTROL UNIT (OCU) WEIGHT :** 12.5 lbs

**MAX RANGE :**  
300M Line of Sight  
150M Non-Line of Sight

**POWER SOURCE :** BB2590/U

**ENDURANCE :** 4-6 hours

**SHIPPING WEIGHT :** 90 lbs

## LONG RUN LIFE

The MARCbot's simple design operates on the military standard rechargeable lithium ion battery BB-2590/U (NSN 6140-01-490-4316). With a typical runtime of four hours, it can achieve as much as six hours of operation.

## READY FOR ANYTHING

AGT is ready for anything. AGT manufactures products including commercial and military cable and wiring harnesses and an IED detection robot, and delivers services including logistics support, laboratory services, operations management, and program management. Our services for the NASA Stennis Space Center earned the coveted George M. Low National Quality Award. Our status as a HUBZone SDB Tribally-owned 8(a) charter business fulfills a unique set of federal requirements.

To learn more about AGT's specialized robotics or the MARCbot, visit: [www.AppliedGeoTech.com](http://www.AppliedGeoTech.com)

## **AGT Business Development**

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## **OUTSTANDING QUALITY**

Our list of certifications, quality improvements and commitment to workplace innovation is unmatched in the industry. In addition to ISO 9001:2008 and AS9100 registrations, our production facilities meet or exceed MIL-I-45208, MIL-Q-9858A, J-STD soldering, TS 16949, ISO 14001 (Environmental), ANSI/NCSL Z540-1994-1, and MIL STD 45662A Standard certification. AGT is an Audited and Approved Vendor (Nuclear Utilities Procurement Committee). We are fully compliant with all applicable Federal, State, local and client-initiated regulations, requirements and guidelines.