

# AVENGER

REMOTELY OPERATED VEHICLE



# A COMPLETELY NEW MID-SIZED ROBOT WITH THE CAPABILITIES OF A LARGE ROV



## A POWERFUL NEW TOOL

The Avenger is an exceptionally capable bomb disposal and military EOD robot. This entirely new platform is built on innovative sub-systems, including:

- Powerful geared chassis
- No-throw adjustable tracks
- A highly dextrous arm & claw
- Multiple high resolution cameras
- Optimized RF wireless system
- User-friendly command console



## REAL CAPABILITIES

Compared to other mid-sized ROVs – and even some larger robot platforms – the Avenger offers outstanding capabilities, including:

- Higher reach, with 7 Degrees of Freedom (DoF)
- Excellent ground speed
- Exceptional lift capability
- CBRNE sensor & EOD tool integration
- Mimic display for ROV positional awareness
- GPS location
- Directional two-way audio
- Manipulator positioning pre-set configurations



## CBRNE SENSOR CAPABILITIES

Chemical, Biological, Radiological and Nuclear (CBRN) agents can present a real threat to the public and infrastructure. The Avenger provides an integrated CBRN response solution. It is fully compatible with a wide range of 3rd party sensors and electronic devices that enable a response team to understand and manage a complex CBRN threat. The Avenger includes an on-board computer that receives mission-critical data using 14 auxiliary ports for USB and Ethernet connections. Information is then relayed to the Command Post where team leaders can make well-informed decisions.

# WORLD CLASS CAPABILITIES

## ENGINEERED FOR RELIABILITY

The Avenger's RF system selects the best 2.4 GHz channel available, or a designated alternate frequency, to avoid wireless contention. This permits full wireless operation at 1km range. The gearing, tracks, antenna, arm and claw are highly rugged. The Avenger's sealed exterior is designed to withstand crossing a stream or a post-operation washing. Its hard anodized finish resists scratches and dents in order to help prevent damage from harsh operating conditions. Its optimized battery system (3 x 12V 13 Ah) provides hours of operation to accommodate longer missions.

## SEE IT. REACH IT. GRAB IT.

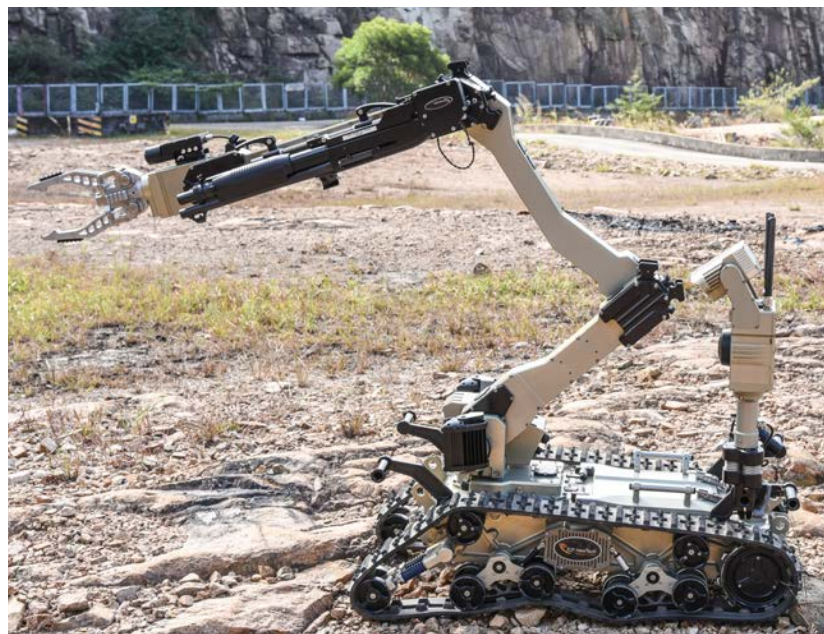
The Avenger's arm and claw provide capabilities typically found only on larger ROVs. It can easily reach over and under obstacles to grasp a target or deploy X-Ray systems, disruptors, sensors and EOD Tools. The Avenger has been designed to defeat the challenges posed by a Vehicle-Borne IED (VBIED) and similarly difficult missions in urban centers. Its tracks remotely adjust downwards to give it the stability needed for reliable lifting.

## DEPLOYMENT SPEED

The Avenger's new gearing and track sub-systems allow it to move at up to 8 km/h and overcome sand, mud, snow, gravel, and shallow water. Its tracks adjust upwards for maximum traction for climbing stairs and railway tracks, and downwards for greater control when descending.

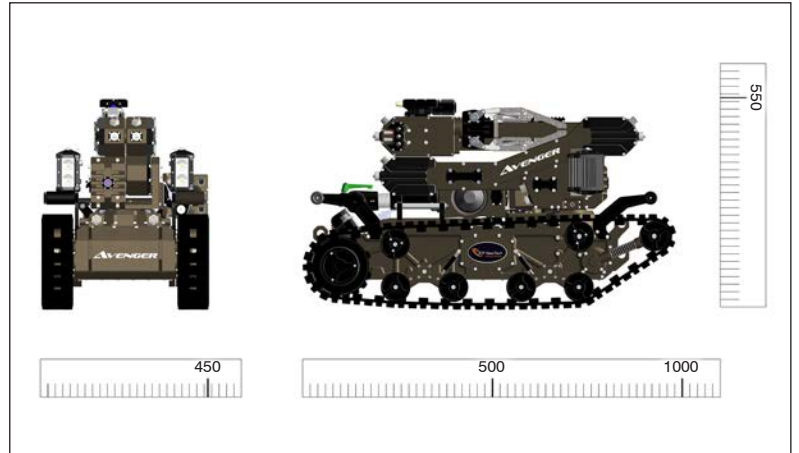
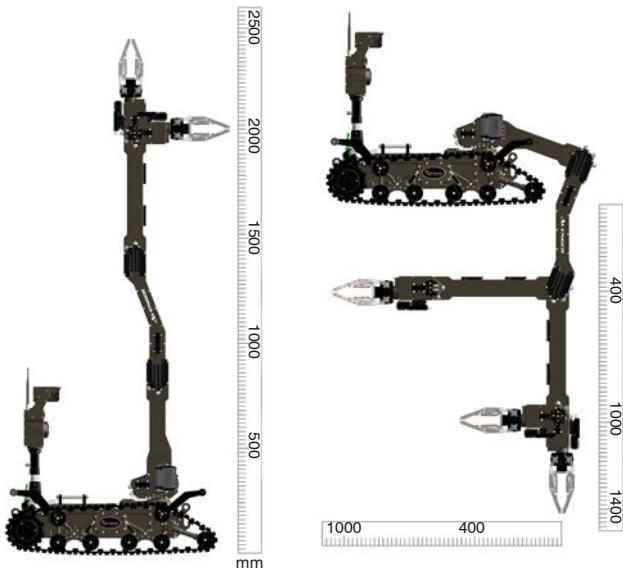
## HIGH DEFINITION CAMERAS

With 4 dedicated cameras, including 2 with built-in IR illumination, operators have excellent visibility over the target and the surrounding area. The Turret Lighting system also provides excellent illumination in dark areas.

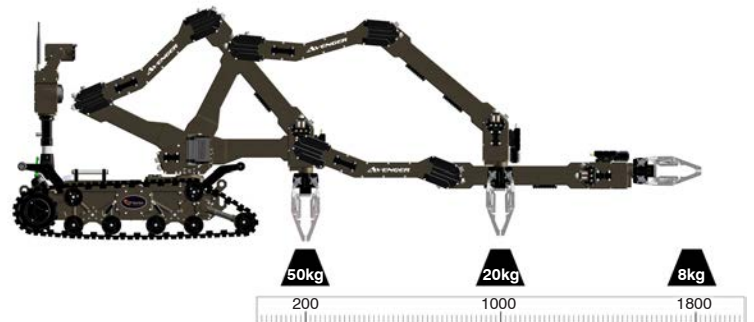
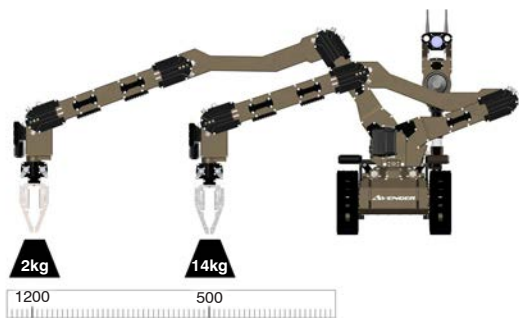


## MAXIMUM REACH AND LIFT

All figures shown in millimeters (mm).



Avenger in stowed position.



## COMPACT STORAGE & TRANSPORTATION

At the press of a button, the Avenger uses one of its many pre-set configurations to automatically fold itself into a compact position for transportation and storage. At only 112kg, the Avenger is light and small enough to fit in smaller response vehicles used by law enforcement in major cities worldwide. This eliminates the need for a dedicated ROV trailer or larger scale vehicle.