QinetiQ North America is proud to present the U.S. Army REF Minotaur. Minotaur is a robotic Bobcat T110 diesel powered loader with mine rollers. Minotaur supports a wide variety of tactical missions including route and path clearance, and load carriage for the supported warfighters. Using QinetiQ’s wearable Tactical Robotic Controller™ (TRC), the dismounted warfighter can maneuver Minotaur from more than 900 meters away in order to identify and defeat IEDs. Minotaur is supported with an array of electro-optical infrared and thermal cameras as well as a front mine roller/rake system for destroying buried munitions.

Minotaur Mission
- Route and path clearance
- Engineer equipment transport

Specifications
- Operable in unmanned and manned modes
- Robotic Appliqué Kit installs onto Bobcat T110 in 15 minutes or less
- Front mine roller payload system installs in minutes
- Cameras: 6 fixed daylight/IR, 1 daylight/thermal PTZ
- Reconnaissance: 26:1 zoom camera daylight/FLIR and two-way audio
- Tactical Robotic Controller: 11 lbs
- Speed: travel speed up to 5.2 mph (8.4 km/hr)
- Operating Height with Appliqué Kit: 98 inches (2,489.2 mm)
- Operating Width: 47.2 inches (1,199 mm)
- RF Range: over 800 m line of sight
- User Interface: intuitive graphical user interface with real time system feedback
- Endurance: over 24 hours of continuous operation
- Auxiliary Fuel/Water Storage Capacity
- Vehicle Mounted Battery Charger: allows on-site small unit battery charging
- Safety: dedicated SafeStop system for instant stop command via TRC
- 9500 LB Recovery Winch
Any Bobcat Loader equipped with Bobcat’s Selectable Joystick Controls (SJC) is capable of using QinetiQ’s RAK System to become a high performance robotic platform.

**Tactical Robotic Controller**

The TRC is a lightweight, wearable controller that allows the Marine or Soldier to control a family of unmanned ground vehicles (UGVs) like Minotaur. The warfighter simply attaches the communications pack for the system that they want to control, selects the application on the touch screen, and begins to command the platform.

Using the MOLLE loop system, TRC easily attaches to the warfighter’s body armor, standard rucksack, or can be carried separately. TRC’s hand controller fits into a drop holster on the warfighter’s leg to simplify both carriage and accessibility. The batteries for TRC are recharged in the field using the onboard battery charger located on Minotaur.