### Production Specifications

**TALON™**

**Vehicle Dimensions**
- Height (arm stowed): 11 in. (27.9 cm)
- Height (arm extended): 62 in. (1.5m)
- Width: 22.5 in. (57.2 cm)
- Length: 34 in. (86.4 cm)
- Horizontal reach: 52 in. (1.3m)
- Below grade reach: 34 in. (86.4 cm)
- Ground clearance: 2.75 in. (7 cm)

**Weight**
- 85 to 120 lb (34 to 54 kg) (Mission profile dependent)

**Maneuverability**
- Speed: 0 to 5.2 mph (8.3 kg/hr), variable speed settings
- Speed: 0 to 7.6 ft/sec (1.8 m/sec)

**Maneuverable Speed**
- 0.2 lb (0.9 kg) per in. load

**Control Interface**
- Intuitive joystick control at all speeds

**Obstacle Navigation**
- 45 deg stairs, 56 deg slide slope, 15 in. (38 cm) of snow, demolition rubble

**Payload Capacity**
- 100 lb (45 kg)

**Drag Capacity**
- 200 lb (91 kg)

**Arm Lift Capacity**
- 20 lb (9 kg) at full extension
- 180 deg pitch lower arm/270 deg pitch upper arm

**Gripper Capacity**
- 20 lb (9 kg) at full extension
- 25 lb (11 kg) max capacity
- Intuitive joystick controls for upper and lower arm
- 180 deg pitch lower arm/270 deg pitch upper arm

**Robot Battery Endurance**
- Lead acid: 300 W-hr, 36 Vdc, 2 hr at full speed
- Lithium Ion (optional): 750 W-hr, 36 Vdc, 4 hr at full speed

**OCU Battery Endurance**
- 120/240 Vac converter (standard), continuous
- AC power, nickel metal hydride 3.6 A-hr 24 Vdc for 3.5 hr (rechargeable)
- Rechargeable Lithium Ion (optional) 8 hr
- Non-Rechargeable Alkaline (optional) 1 hr

**OCU/Robot Communications**
- Digital/analog (standard), 500 to 800m line of sight (LOS)
- High gain antenna (optional) extends range to 1200m LOS
- Fiber Optics
- + Kevlar wrapped (optional), 300m
- Buffered (optional), 500m

**Cameras**
- Four fixed-focus color cameras, each with dimmable LED lights (standard)
- Auto-focus color zoom camera (40:1) 4x digital - 10x optical
- Auto-focus color zoom camera (300:1) 12x digital - 25x optical
- Pan/tilt/mast
- Floodlights
- Infrared cameras
- Camcorder
- MV-14 night vision attachment to zoom cameras
- Up to seven cameras can be attached, including two zoom cameras. The OCU adjusts zoom camera(s) and individually displays images from each camera or from four cameras at one time on a quad split screen.

**Environmental**
- Waterproof harnessing and connectors. All cameras, antennas, manipulators, electrical and communication boxes are submersible to 90 ft (27m) with specialized configurations. 10 lb payload can be mounted to vehicle for water thruster package without protection. Equipment operates in all climates, weather, temperatures and conditions including rainstorms, thunders, snow, low visibility, immersion suits and heavy wet mud.

**Audio**
- One-way audio enables full 2 way OCU
- Two-way audio 2 way (800m LOS)

**Electrical**
- Isolated firing circuits (optional)
- Two RS 232 ports available for payload interface
- Plug-in/pull-out subcon waterproof connectors

**Optional Sensors**
- Radiological, biological, chemical, temperature, gas

**Support/Training**
- 2.5 days of operator/maintenance training in Waltham, MA
- CD-ROM based operator and maintenance manuals
- One year parts and labor warranty
- Factory service, maintenance and customized training

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**Additional Tools/Accessories**
- Recoilless PAN disrupter mount
- RE12-12 disrupter mount
- Shotgun mount
- Portable X-ray mount (pending)
- Wire cutting tool
- GPS compass
- Heavy duty tracks and sprockets
- Additional shipping storage containers
TALON™ robots are powerful, durable, lightweight tracked vehicles that are widely used for explosive ordnance disposal (EOD), reconnaissance, communication, sensing, security, defense and rescue. They have all-weather, day/night and amphibious capabilities and can navigate virtually any terrain.

How are they different from other robots on the market?

- **Man-Portable** – At less than 100 lb (45 kg), TALON™ can be easily transported and is instantly ready for operation.
- **Rugged** – TALON™ robots can take a punch and stay in the fight. One was blown off the roof of a Humvee in Iraq recently while the Humvee was crossing a bridge over a river. It flew off the bridge and plunged into the river below. Soldiers later used its heavily damaged operator control unit (OCU) to drive it back out of the river.
- **Fast** – TALON™ is the fastest robot on the market today, easily keeping pace with a running soldier.
- **High Payload Capacity** – Long-term system versatility optimizes investment. TALON™ has the highest payload and payload-to-weight ratio, allowing for the incorporation of a broad array of sensor packages.
- **Mobile** – Climbs stairs, negotiates concertina wire, plows through snow; can right itself.
- **Intuitive** – Easiest robot to operate; joystick operator control; quad screen display.
- **Outstanding Situational Awareness** – Can hold up to seven color cameras, including night vision and zoom options.
- **Withstands Repeated Decontamination** – Demonstrated at Ground Zero after the 2001 World Trade Center attack. Electronics withstood 45 straight days of being decontaminated twice a day without failure.
- **Long Battery Life** – TALON™ robots have the longest battery life of all man-portable robots.
- **Best Service History** – Easy to maintain and service, long spares, service and repair history in Iraq.
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- **High Payload Capacity** - Long-term system versatility optimizes investment. TALON™ has the highest payload and payload-to-weight ratio, allowing for the incorporation of a broad array of sensor packages.

- **Mobile** - Climbs stairs, negotiates rock piles, overcomes concertina wire, plows through snow; can right itself.

- **Intuitive** - Easiest robot to operate; joystick operator control; quad screen display.

- **Outstanding Situational Awareness** - Can hold up to seven color cameras, including night vision and zoom options.

- **Withstands Repeated Decontamination** - Demonstrated at Ground Zero after 2001 World Trade Center attack. Electronics withstood 45 straight days of being decontaminated twice a day without failure.

- **Long Battery Life** - TALON™ robots have the longest battery life of all man-portable vehicles.

- **Best Service History** - Easy to maintain and service; two quarterly service and repair cycles in Iraq.

Numerous TALON™ robots have survived high order detonation in Iraq. One robot has actually been blown up three times yet is still in the fight with new arms, wrists, wiring and cameras.
TALON™ robots are powerful, durable, lightweight tracked vehicles that are widely used for explosive ordnance disposal (EOD), reconnaissance, communications, sensing, security, defense and rescue. They have all-weather, day/night and amphibious capabilities and can navigate virtually any terrain.

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- **Long Battery Life** – TALON™ robots have the longest battery life of all man-portable robots.
- **Best Service History** – Easy to maintain and service; low parts, service and repair frequency in Iraq.
TALON™
Vehicle Dimensions
Height (arm stowed): 11 in. (27.9 cm)
Height (arm extended): 62 in. (1.5m)
Width: 22.5 in. (57.2 cm)
Length: 34 in. (86.4 cm)
Horizontal reach: 52 in. (1.3m)
Below grade reach: 34 in. (86.4 cm)
Ground clearance: 2.75 in. (7 cm)
Weight
85 to 120 lb (34 to 54 kg)
(Mission profile dependent)

Robot Battery Endurance
Lead acid, 36V 15Ah, 360Wh at full speed
(rechargeable)
Lithium ion: 11Ah, 360Wh at full speed

OCU Battery Endurance
SOCHEP non-rechargeable, lithium ion.
40 watts per hour at 24V 100Wh (rechargeable)
Non-rechargeable, lithium ion: 100Wh
Non-rechargeable, zinc carbon: 60Wh

Maneuverable Speed
0 to 5.2 mph (8.3 kg/hr), variable speed settings
0 to 7.6 ft/sec (1.8 m/sec)

Maneuverability Control
Intuitive joystick control at all speeds

Obstacle Navigation
45 deg stairs, 56 deg slide slope, 15 in. (38 cm)
of snow, demolition rubble

Payload Capacity
100 lb (45 kg)

Drag Capacity
200 lb (91 kg)

Arm Lift Capacity
200 lb (91 kg) max payload
400 lb (181 kg) max payload for upper and lower arm
100 lb (45 kg) maxpayload for upper and lower arm

Gripper Capacity
20 lbs (9 kg) at full extension
5 lbs (2.3 kg) max payload

Camera
Four fixed-focus color cameras, each with
dimmable LED lights (standard)

Environmental
Waterproof harnessing and connectors. All
cameras, antennas, manipulators, electrical
and communication boxes are submersible to 90 ft
(27m) when properly configured. OCU is water
resistant and designed to operate in a heavy down
pour without protection. Equipment operates in
different weather conditions and climates,
including mountains, deserts, snow/ice, demolition
ruins and heavy wet mud.

Audio
One-way audio (robot to/from OCU)
Two-way audio (robot to/from OCU)

Electrical
48V: 72Wh per module, 480V: 720Wh per
two-way audio

Operator Control Unit (OCU)
Dimensions
Height: 9 in. (22.9 cm)
Width: 16 in. (40.6 cm)
Length: 19 in. (48.3 cm)
Weight: 33 lb (15 kg)

Operator Control Unit (OCU)
Dimensions
Height: 9 in. (22.9 cm)
Width: 16 in. (40.6 cm)
Length: 19 in. (48.3 cm)
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OCU/Robot Communications
Wireless Options
• Digital/analog (standard), 500 to 800m
line of sight (LOS)
• High gain antenna (optional) extends
range to 1200m LOS

Fiber Optics
• Kevlar wrapped (optional), 300m
• Buffered (optional), 500m

Cameras
• Four fixed-focus color cameras, each with
dimmable LED lights (standard)

Additional Tools/Accessories
• Recoilless PAN disrupter mount
• RE12-12 disrupter mount
• Shot gun mount
• Portable X-ray mount (pending)

Support/Training
2.5 days of operator/maintenance
training in Waltham, MA
CD-ROM based operator and maintenance
manuals
One year parts and labor warranty
Factory service, maintenance, spare part and
customized training
TALON™ Vehicle Dimensions  
- Height (arm stowed): 11 in. (27.9 cm)  
- Height (arm extended): 62 in. (1.5m)  
- Width: 22.5 in. (57.2 cm)  
- Length: 34 in. (86.4 cm)  
- Horizontal reach: 52 in. (1.3m)  
- Below grade reach: 34 in. (86.4 cm)  
- Ground clearance: 2.75 in. (7 cm)  

Weight  
- 85 to 120 lb (34 to 54 kg) (Mission profile dependent)  

Maneuverable Speed  
- 0 to 5.2 mph (8.3 kg/hr), variable speed settings  
- 0 to 7.6 ft/sec (1.8 m/sec)  

Maneuverability Control  
- Intuitive joystick control at all speeds  

Obstacle Navigations  
- 45 deg stairs, 56 deg slide slope, 15 in. (38 cm) of snow, demolition rubble  

Payload Capacity  
- 100 lb (45 kg)  

Drag Capacity  
- 200 lb (91 kg)  

Arm Lift Capacity  
- 16K lb (72 kg) maximum  
- 55 deg pitch control by upper and lower arms  
- 160 deg pitch control by upper and lower arms  

Gripper Capacity  
- 20 lb (9 kg) at full extension  
- 25 lb (11 kg) max capacity  
- Intuitive joystick controls for upper and lower arm  
- 180 deg pitch lower arm/270 deg pitch upper arm  

Robot Battery Endurance  
- Lead acid, 300 W-hr, 36 Vdc, 2 hr at full speed (rechargeable)  
- Lithium ion (optional) 750 W-hr, 36 Vdc, 4 hr at full speed  

OCU Battery Endurance  
- 120/240 Vac converter (standard), continuous AC power, nickel metal hydride 3.6 A-hr 24 Vdc for 3.5 hr (rechargeable)  
- Rechargeable lithium ion (optional) 8 hr  
- Non-rechargeable alkaline (optional) 1 hr  

OCU/Robot Communications  
- Digital/analog (standard), 500 to 800m line of sight (LOS)  
- High gain antenna (optional) extends range to 1200m LOS  
- Fiber Optics  
- Kevlar wrapped (optional), 300m  
- Buffered (optional), 500m  

Cameras  
- Four fixed-focus color cameras, each with dimmable LED lights (standard)  

Available Options  
- Auto-focus color zoom camera (40:1) 4x digital - 10x optical  
- Auto-focus color zoom camera (300:1) 12x digital - 25x optical  
- Pan/tilt/mast  
- Floodlights  
- Infrared cameras  
- Camcorder  
- MV-14 night vision attachment to zoom cameras  
  - Up to seven cameras can be attached, including two zoom cameras. The OCU adjusts zoom camera(s) and individually displays images from each camera or from four cameras at one time on a quad split screen.  

Environmental  
- Waterproof harnessing and connectors. All cameras, antennas, manipulators, electrical and communication boxes are submersible to 90 ft (27m) when properly configured. OCU is water resistant and designed to operate in a heavy downpour without protection. Equipment operates in all latitudes, weather, temperatures and conditions including rainstorms, showers, snow, sleet,lemental visible and heavy snow and rain.  

Audio  
- One-way audio link to/from OCU  
- Two-way audio link to/from OCU (optional)  

Electrical  
- Lead acid battery (optional)  
- 12V 332 amp-hour pack available for optional interface  

Optional Sensors  
- Radiological, biological, chemical, temperature, gas  

Additional Tools/Accessories  
- Recoilless PAN disrupter mount  
- RE12-12 disrupter mount  
- Shotgun mount  
- Portable X-ray mount (pending)  
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- 2.5 days of operator/maintenance training in Waltham, MA  
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TALON™ robots the soldiers choice