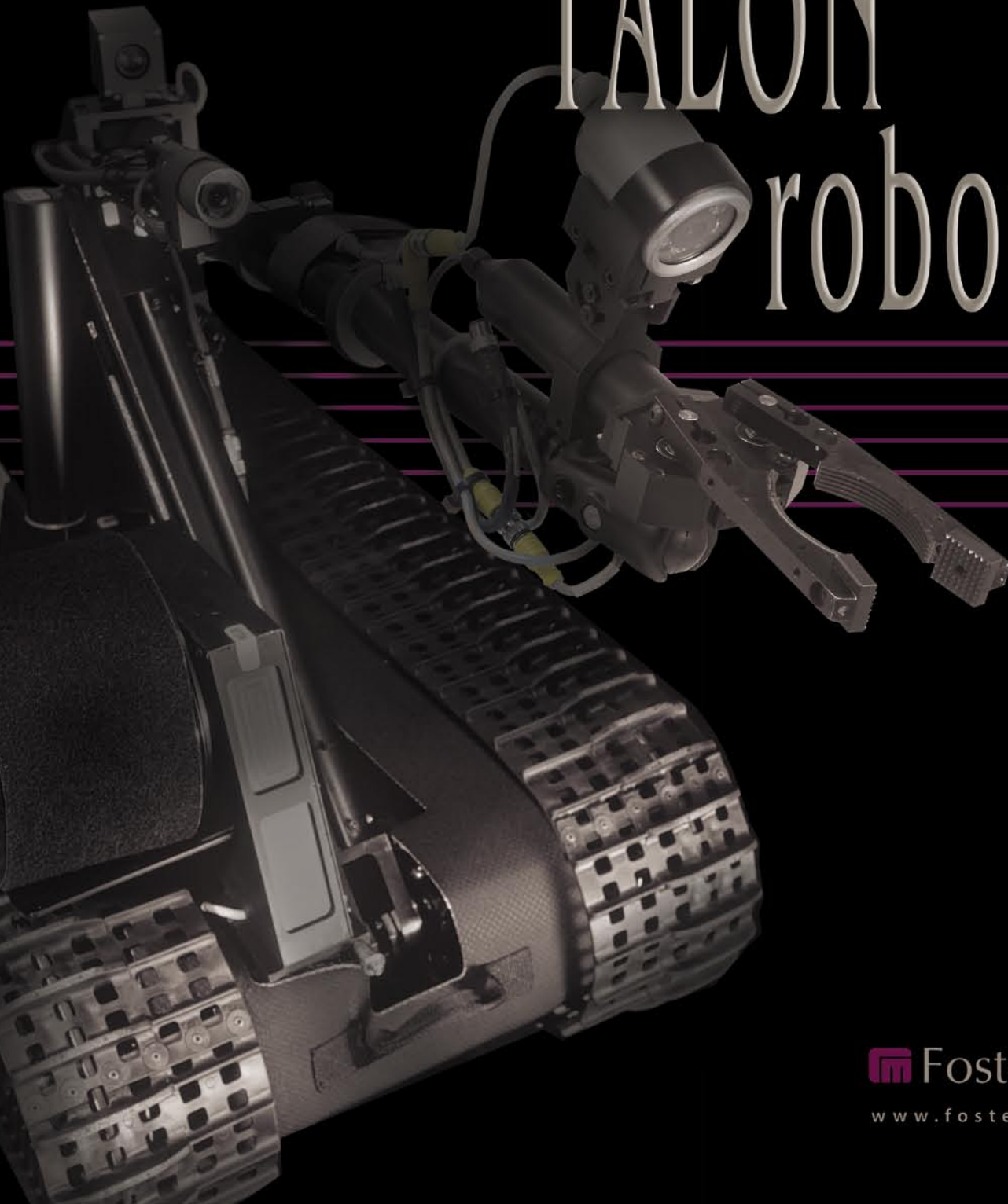


The Soldier's Choice **TALON™**
robots

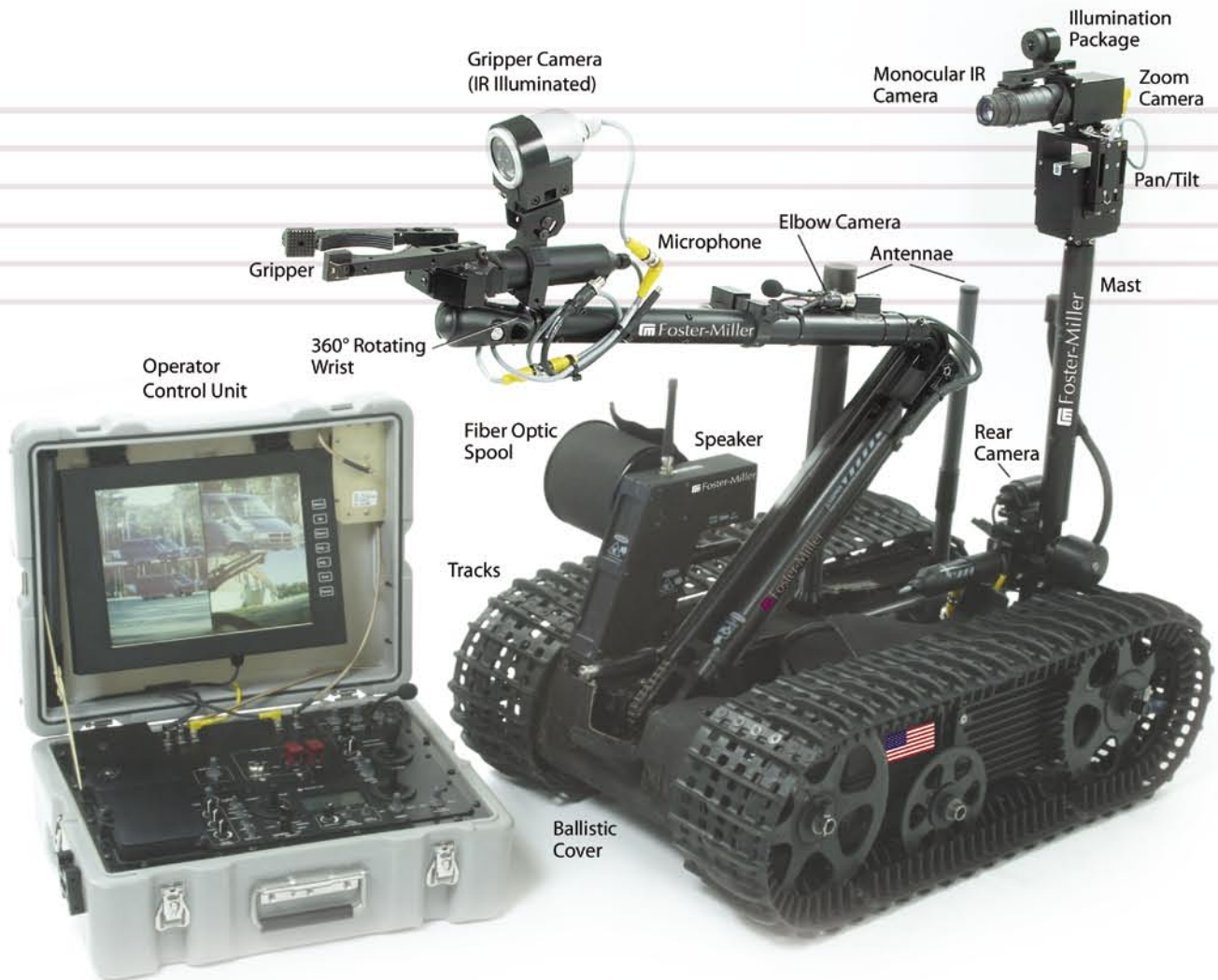


The Soldier's Choice

TALON™

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.

robots



How TALON™

Differs from the Competition



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.

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 capacity 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 controls; 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 failing.
- **Long Battery Life** – TALON™ robots have the longest battery life of all man-portable robots.
- **Best Service History** – Easy to maintain and sustain; best spare parts, service and repair history in Iraq.

How TALON™

Optimizes Situational Awareness

Up to 7 color cameras to choose from, multiple zoom and night vision options



View from Standard Camera
at 100 meters



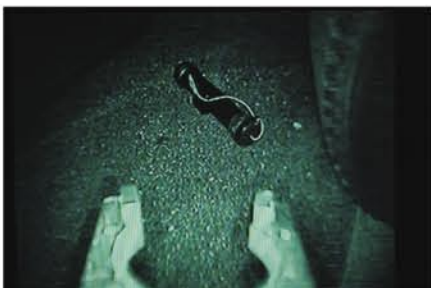
View from
40:1 zoom at
100 meters



View from
300:1 zoom at
100 meters



Night Vision
Infrared Monocular
Attached in Front
of Zoom Camera



Night Vision
IR Illuminated Camera
on Gripper

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)

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

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

Gripper Capacity

40 in.-lb of gripping strength

6 in. (15.2 cm) wide opening

manual 340 deg wrist

OCU controllable 360 deg rotating wrist (optional)

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)

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

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)

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 down-pour without protection. Equipment operates in all climates, weather, temperatures and conditions including mountains, deserts, snow/ice, demolition rubble and heavy wet mud.

Audio

One-way audio (robot to/from OCU)

Two-way audio (robot to/from OCU) optional

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

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

Reusable shipping/storage containers

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 parts and customized training

TALON™ robots the soldier's choice



 **Foster-Miller**
A QinetiQ company
www.foster-miller.com