



General Trading Limited Liability Company

Sharja Airport Free Zone, P.O. Box 120679, Sharja
 Tel: + 971 50 694 6139 Tele/Fax: + 971 4 355 2833
 www.premnet-fzc.com info@premnet-fzc.com

MURV-100 Robot System

Basic System

Consisting of these items ---

<p>MURV-100 Vehicle plus Radio Control Console</p>	<p>Radio Control Console communicates with MURV-100 vehicle via control transceivers in a matched pair. Separate TV receiver is required to receive and display video signals from the vehicle</p> <p>MURV-100 vehicle with driving camera (b/w, pan/tilt) and reversing camera (b/w, fixed) both with built-in LED floodlights. Video transmitter and control receiver are matched to those in the Control Console</p>	
<p>Shoulder Harness for Radio Control Console</p>	<p>Shoulder harness in black ballistic Nylon for convenient carry of Radio Control Console</p>	
<p>Elevator Block</p>	<p>Elevator Block attachment goes between MURV-100 vehicle and Standard or High-Rise Arm to raise them by 31centimeter</p>	
<p>Video Antenna and Control Antenna, both with tripods,</p>	<p>Video link: Tripod-mounted Yagi directional antenna. Control link: Tripod-mounted ground plane with whip antenna</p>	
<p>3 Vehicle Battery Packs 2 Console Battery Packs</p>	<p>Each fully charged Vehicle Battery Pack powers a MURV-100 from 3 to 4 hours (depending on severity of work). Console Battery Pack lasts 4 to 6 hours</p>	
<p>1 Battery Charger 2 Charger Adapters</p>	<p>Battery Charger will charge vehicle and console batteries, both when installed as well as removed from their units (via Charger Adapters). Battery Charger plugs into AC (specify 110 or 220V) or 12V DC, and has CHARGE and FLOAT indicator lights</p>	
<p>Fastener, Fuses & Small Tools Kit</p>	<p>Box of fasteners, fuses and small tools for occasional replacement needs</p>	
<p>Operations Manual & Video, Maintenance Manual & Video</p>	<p>For reference and training, in English; For videos, specify system: NTSC or PAL</p>	



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MURV-100

Upgrades

SI (Sensor Interface) Modules
(one per sensor required)

Each MURV-100 robot can carry up to 4 SI Modules with their sensors (shown here) to the site of the WMD threat. Each SI Module is adapted to a specific WMD sensor model. We stock the SI Modules for the most popular sensors (see below) and will custom-produce an SI Module for the specific sensor of your choice at no extra charge.

The black base is the SI Module, the yellow unit strapped to it is the sensor (here a RAE sensor for toxic gases)

Each SI Module contains a light source to illuminate the sensor display, a video camera to "look" at it, a remote on/off switch, and any other remote functions which the particular sensor requires. The video camera sends an error-free analog view of the display back to the control console's monitor, preventing digital errors and noise.



Examples of WMD Sensors
(we do not sell sensors but can assist you with purchasing them)

Sensors are available today to investigate the presence of Blister/Nerve Agents, Toxic Gases, Radioactive Materials, and Explosives. (Biological sensors are not yet small enough to carry on a MURV-100)

We carry SI Modules for the sensors shown here:

- Microsensor System Minicad MK II for Tabun, Sarin, Soman, Mustard, DMMP, etc.
- Draeger Multiwarn for concentration of toxic gases.
- Radiation Pager-S to for gamma and nuclear radiation.



Various Sizes and Shapes of Pelican Hardcases

Pelican-brand waterproof hardcases outfitted with customized foam inserts. We can supply the right sizes of cases for all your robot components — Vehicle, Standard Arm, Long Arm, Track Assembly, Turntable, Base Pitch Assembly, Recoil Disruptor Arm, etc. — and will make recommendations depending on the items in your order.





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Accessories for Disrupting and Blasting

Recoilless Disruptor
20mm caliber
(12 gauge)



20mm caliber Recoilless Disruptor is ideally suited for firing from small robots, such as our MYRV-100, at any angle and at elevations from below ground to 265cm above ground.



Dual-Laser Aiming
Rangefinder with
Camera and Firing
Circuit

This triple-purpose unit mounts on the disruptor barrel. Its twin lasers provide (1) exact distance and (2) precise aiming. Away from the target the two lasers are adjusted so that their beams intersect at the desired distance. At the target the robot is moved forward until the two laser dots coincide as viewed through the b/w camera, indicating correct distance and aim. The Firing Circuit provides the electrical impulse to fire the cartridge.



Disrupter Arm
w/Firing Circuit

This Disruptor Arm is suitable for firing recoil disruptors at ground level, typically at pipe bombs. Remote controls for elevation and angle, plus secure remote firing via digital coding, interlocked switches and weapons key. The arm is field-installed replacing Standard or High-Rise Arm.



Disrupter Trailer
w/Firing Circuit

The Disruptor Trailer is towed by MURV-100 to the suspicious device on remote-actuated "trailer hitch", positioned at proper distance, and aimed. After backing the robot away to a safe distance, the disruptor is fired remotely via digital coding, interlocked switches and weapons key. Suitable for firing recoil disruptors.



Charge Placer

The Charge Placer accessory deploys a small disposable container at a precise location, usually under a vehicle. In the container can be an explosive charge, a stand-alone video camera or a sensor. A small b/w video camera looking straight up locates the precise spot for the operator to lower the container to the ground.





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MURV-100

Accessories for Looking

Remote-Control Color Zoom/Pan/Tilt Camera

Using a COTS (commercial off-the-shelf) video camera mounted on a pan/tilt mechanism, this optional camera combines remote-control zoom, pan and tilt, with automatic focus and automatic aperture control. It gives a selectable view separate from the other cameras, and can provide a record of the events on video cassette.



Zoom Option on any Camera

Although we recommend against it, we can provide the driving camera and/or the hand camera with zoom.

Color Option on any b/w Camera

If desired we can provide any or all of the three regular cameras in color.

Halogen Floodlight

Possibly useful for viewing by human eyes but not required for the video cameras - they have built-in LED floodlights and produce good images at very low light levels. This floodlight also draws extra current from the vehicle battery and will reduce run time before recharging.



Carrier for X-Ray Source, plus Holder for 8 x 10" X-Ray Film Cassette

For taking X-rays of objects remotely, MURV-100 places Film Holder behind object, aims X-ray source in Carrier, triggers it via remote firing circuit, then brings Film Holder back to operator. Recommended X-ray sources are Golden Engineering's XR-150 or XR-200.



15" Flat-Panel Video Monitor in Hardcase for Control Console

This accessory adds a Pelican Hardcase to house the Control Console (provided with the vehicle on Page 1) and a 15-inch Flat-Panel Color Video Monitor for razor-sharp viewing. Also incorporates antenna plugs to connect video and control antennas (see Page 2).



Quad Video Display Option

This option lets the operator toggles a switch to show either four images or one image on the monitor. In the "4" position, the views from all four robot cameras appear on the monitor at the same time; In the "1" position only one camera's view is seen, with the viewing camera selected by the "Camera Select" switch in the normal manner.

