

SUBJECT: REQUEST FOR APPROVAL TO PURCHASE AVATAR II TACTICAL ROBOT AND CUSTOMIZED ATTACHMENTS

SOURCE: Police Department

COMMENT: During a recent criminal investigation, the Porterville Police Department had a prolonged tactical incident lasting many hours which occurred within the city of Porterville. The Porterville Police Department's Special Weapons and Tactics team was called out and the incident was brought to a safe conclusion with the assistance of the Tulare County Sheriff's Department's tactical robot.

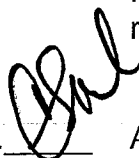


The Porterville Police Department has found they are relying more and more on other agencies for support in order to bring these dangerous situations to a successful conclusion. This increased need for outside support results mainly from the Department's lack of specialized equipment, specifically a tactical robot. The use of the robot in tactical incidents would save time, but primarily would reduce the need to place officers in harm's way by physically searching for an armed suspect in a concealed area. The tactical robot can be used to search almost any area an officer can, with personnel viewing from a safe distance and location on a handheld view finder. Because of this added safety and efficiency, the Department is requesting permission to purchase an Avatar II Tactical Robot, along with the attachments listed below.

Avatar II Base Robot (includes battery, controller, and battery chargers)
This robot will allow Department personnel to search areas where it would be unsafe for an officer(s) to typically search, such as searching for armed suspects and searching confined spaces.

Avatar II Pan/Tilt Infra-Red Camera
This equipment will allow Department personnel to use the Infra-Red Camera, which attaches to the robot, to visibly see suspect(s) who are concealed in dark, confined spaces.

Avatar II High Angle Stabilizers
This equipment will allow Department personnel to use the robot in large multi-story buildings, such as hospitals, schools, motels, and mountain terrain. The High-Angle Stabilizers allow the robot to climb stairs, rocks, and other such terrain.

Avatar II Controller Charger, Adapter and Spare Battery
This equipment will allow Department personnel to have spare batteries for the robot and operator hand controller for prolonged incidents which require longer use of the robot.

D.D.  Appr/Fund  C.M.  Item No. 2

The above Avatar II Robot with the customized attachments noted has an approximate cost of \$17,995.

The Police Department has researched the market and identified that RoboteX Robot Technology Solutions is the sole manufacturer and distributor of these custom robots. This company builds each custom robot to the individual department's specifications. Because of this, we would be able to develop a robot to fit the Department's current needs.

The Department has also identified over 25 different California law enforcement agencies, including Tulare County, who have custom built Avatar II Robots by RoboteX, and have successfully resolved many dangerous incidents after the robot was introduced to search.

The Police Department requests the Council's approval to enter into direct negotiations with the vendor of these items to purchase the above-listed equipment in accordance with the City's Purchasing Policy & Procedure Manual, as amended by Resolution No. 122-87, adopted by Council on October 20, 1987.

The funds for the above items are currently available from the Asset Forfeiture Fund.

RECOMMENDATION: That the City Council:

- 1) Authorize Staff to enter into negotiations with Robotex Technology Solutions to purchase the Avatar Robot and customized attachments; and
- 2) Authorize payment upon satisfactory delivery of the equipment.

ATTACHMENTS: Sales Quote
Avatar II Brochure



RoboteX, Inc.
 1400 Page Mill Road Suite 100
 Palo Alto, CA 94304
 (650) 838-9191

Sales Quote Acknowledgement

Ship To:
 Porterville Police Department CA
 350 N D St
 Porterville CA 93257
 USA

Sales Quote	SQ-20130423-001099
Print Date	4/23/2013 9:14 AM
Customer Purchase Order	
Created Date	4/23/2013 9:00 AM
Payment Terms	Net 30 Days
Delivery Terms	

Invoice To:
 Porterville Police Department CA
 350 N D St
 Porterville CA 93257
 USA

Details

Line	Product	Unit Of Measure	Tax	Scheduled Date	Order Quantity	Unit Price	Extension
005566	Avatar II Base Package (with Robot, Battery, Controller and Chargers) A019P	Each	Y	4/23/2013	1.00	\$12,500.00	\$12,500.00
005567	Avatar II Pan-Tilt-Zoom Camera A005A	Each	Y	4/23/2013	1.00	\$3,750.00	\$3,750.00
005568	Spare Robot Battery A015A	Each	Y	4/23/2013	1.00	\$345.00	\$345.00
005569	Avatar II High Angle Stabilizers A016A	Each	Y	4/23/2013	1.00	\$1,250.00	\$1,250.00
005570	Avatar II Controller Charger Adapter Cable A050A	Each	Y	4/23/2013	1.00	\$150.00	\$150.00

Line Sub Total \$17,995.00

Tax Rate	Type	Taxable Amount	Tax Amount
8.5%	CA - Sales	\$17,995.00	\$1,529.57

Tax Total \$1,529.57

Order Total \$19,524.57

The sales quote provided herein shall be valid for sixty (60) calendar days from the "Print Date" set forth above. All prices in USD.

Customer acknowledges and agrees that it shall: (i) use all products acquired from RoboteX, Inc. ("RoboteX") in compliance with all applicable laws, statutes, rules, regulations, orders and restrictions, and that it will not resell or otherwise transfer or convey any products acquired from RoboteX to any third party without the prior express written consent of RoboteX; and (ii) be responsible for all applicable taxes, duties, tariffs, and the like, related to all products acquired from RoboteX.



ROBOTEX
robot technology solutions

1400 Page Mill Road, Suite 100
Palo Alto, CA 94304

t: 650.838.9191
f: 650.323.1044

PRICING:

The AVATAR® II is typically ordered at a cost of \$17,995. Our most popular package includes the following items:

	Price	3 Year Warranty
AVATAR® II Base Robot <i>Includes one robot (incl. battery and charger), one controller (incl. battery and charger), carrying case, and one year "flipper-to-flipper" warranty.</i>	\$12,500	\$2,500
Pan-Tilt-Zoom Camera (PTZ) Accessory <i>360° color IR camera allows you to survey an area and zoom in (up to 100x) on objects of interest. Includes protective roll bar.</i>	\$3,750	\$750
Spare Robot Battery <i>Spare battery allows you to double the operating time of the AVATAR® II.</i>	\$345	N/A
Battery Controller Connector <i>Allows you to use a BB2590 robot battery as an external power source for your robot controller.</i>	\$150	\$30
High Angle Stabilizers <i>Stabilizing rods attach to back of robot and allow it to climb up over steep inclines and tall objects.</i>	\$1,250	\$250

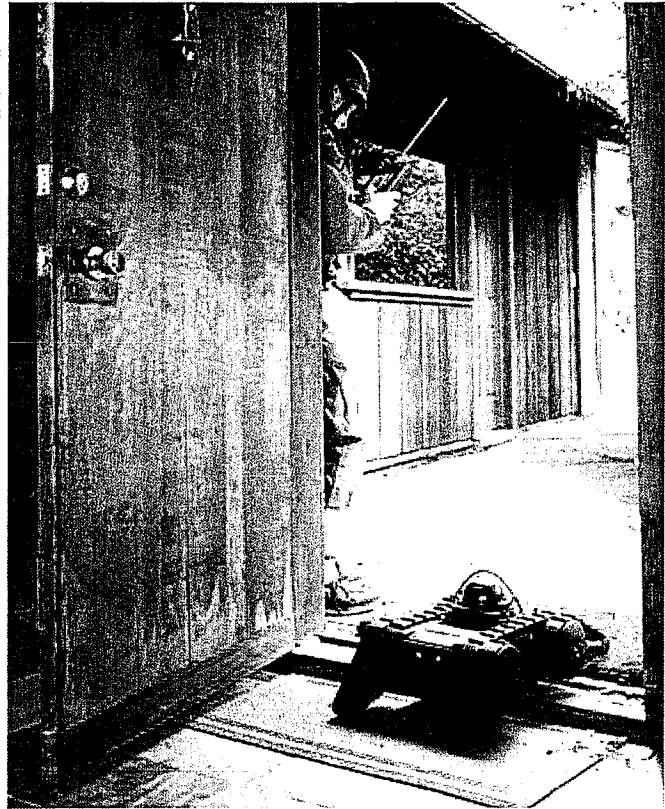
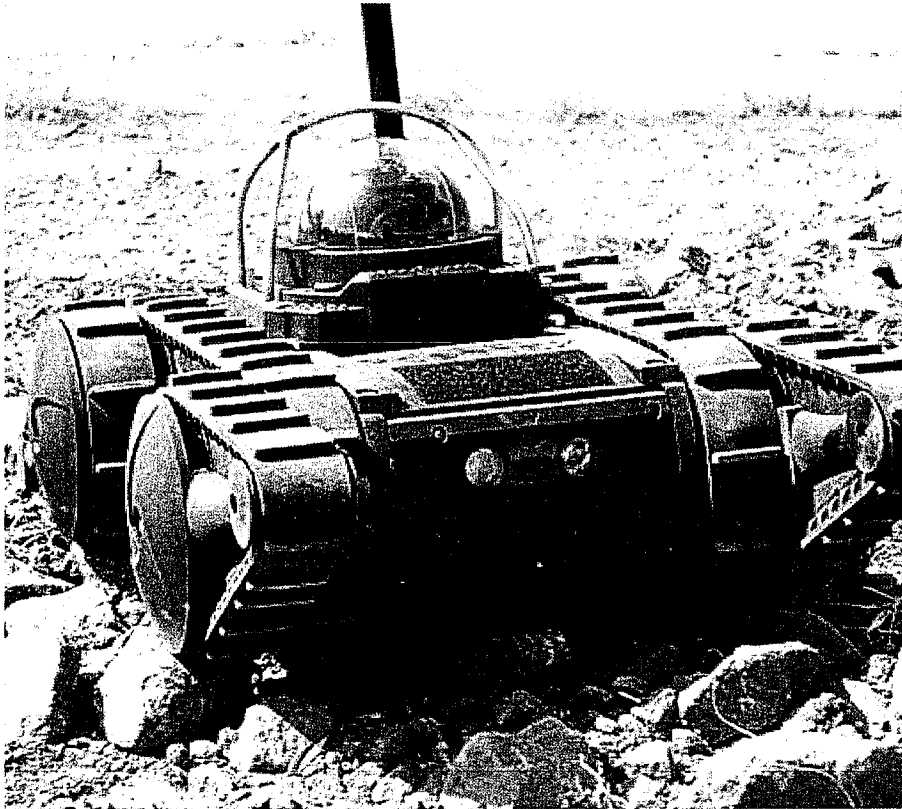
Additional add-ons and accessories include:

AVATAR®II Manipulator Arm <i>Five-axis robotic arm is fitted with built-in camera and carries and manipulates objects up to 8 lbs. in weight</i>	\$19,500	\$4,000
AVATAR®II Extended Manipulator Arm <i>Extended manipulator arm that allows the robot to open doors and reach higher objects than standard arm. Comes with built-in camera.</i>	\$24,500	\$4,900
AVATAR® II Command Terminal <i>Allows user to control robot from remote terminal and view robot's audio/video feed on external monitor. Includes flat-screen monitor, external audio/video receiver, antenna, mini-controller, and control software.</i>	\$6,250	\$1,250
External Audio/Video Receiver <i>Allows for remote viewing of the robot's audio/video feed. Includes receiver unit and antenna only.</i>	\$2,225	\$450



ROBOTEX

robot technology solutions



AVATAR[®] II Tactical Robot

**YOU NEED
THIS ROBOT.**

www.Robotex.com

**The RoboteX
AVATAR II
is a rugged,
affordable,
easy-to-use
tactical robot.**

**Why do I need an
AVATAR II?**

The **AVATAR II** enhances the capabilities of SWAT and tactical response teams by allowing them to quickly and safely inspect dangerous situations.

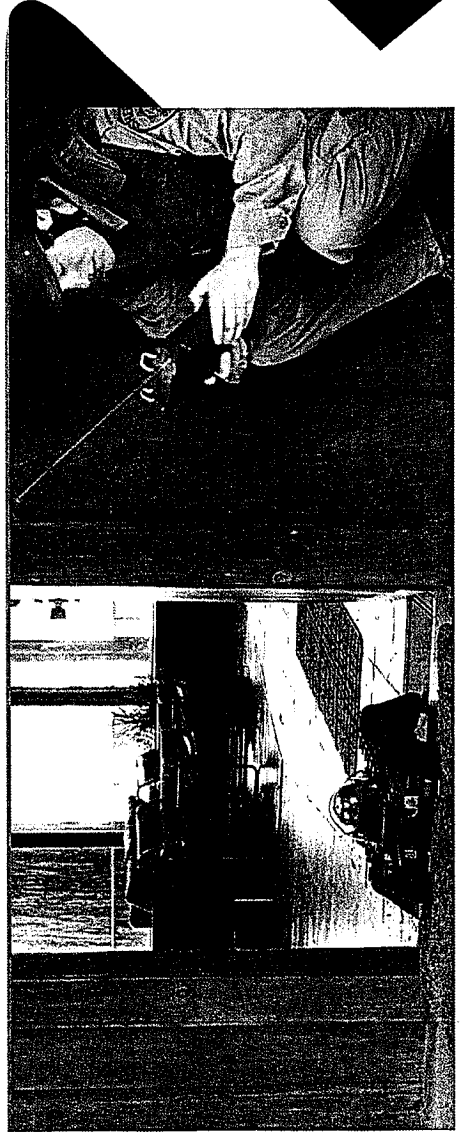
With the **AVATAR II**, there's no need to send personnel in first during an operation. The **AVATAR II** saves lives by keeping first responders out of harm's way, and it does so at a fraction of the price of other robots.

Like a firearm, vehicle, or piece of body armor, the **AVATAR II** is regarded by tactical teams as a standard operational tool. Departments across the United States of America are using the **AVATAR II**. With its unparalleled ease-of-use and market-beating affordability, so can you.

**YOU NEED
THIS ROBOT.**



AVATAR® II Tactical Robot



Activate & Go

- Deploy in seconds with the AVATAR II's simple setup — just insert the battery and go.
- Control the robot with its easy-to-use, handheld touchscreen controller.

Drive & Maneuver

- Navigate the robot over varied terrain, including carpet, clothing, grass, mud, water, and household debris.
- Drive up stairs and self-right the robot if it lands upside down.

Identify & Communicate

- Locate threats with two infrared color cameras, including a 360° pan-tilt-zoom camera.
- Listen and talk to subjects with push-to-talk, two-way audio capability.

Secure & Protect

- Gather valuable intelligence with the robot's built-in video and audio recording capability.
- Operate with confidence over the robot's secure 2.4 GHz Wi-Fi radio.

Depend & Rely

- Finish the mission with up to 5 hours of battery life under normal use.
- Trust RoboteX's all-inclusive warranty plans — no hassles, no gimmicks.

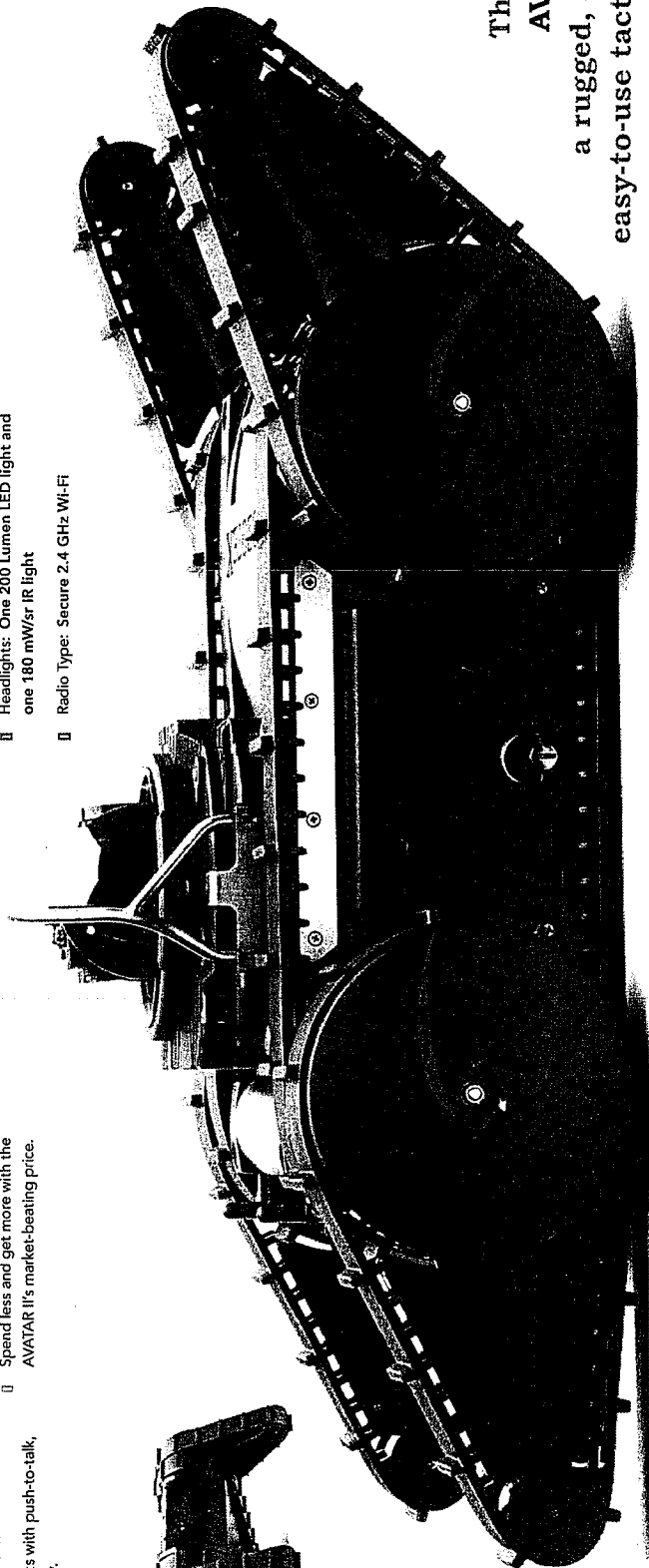
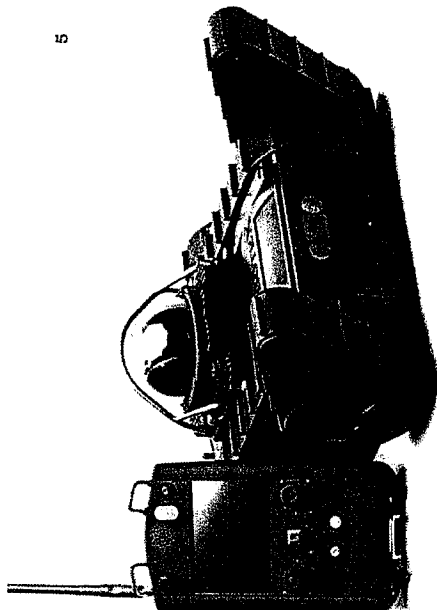
Expand & Save

- Customize your AVATAR II with a variety of plug-and-play accessories.
- Spend less and get more with the AVATAR II's market-beating price.

Technical Specs

- Operating Range: 300 meters
- Battery Life: 4-5 hours
- Climbing Angle: 60 degree incline
- Physical Dimensions: 24.41 in x 15.35 in x 6.14 in
- Weight: 25 lb (without battery)
- Optics: Wide-angle color drive camera
- Chassis Material: Durable Monostructure Composite
- Battery: BB-2590 Rechargeable, Military-grade, Lithium-ion
- Track System: "Closed Track" Design with Brushless Motors
- Headlights: One 200 Lumen LED light and one 180 mW/sr IR light
- Radio Type: Secure 2.4 GHz Wi-Fi

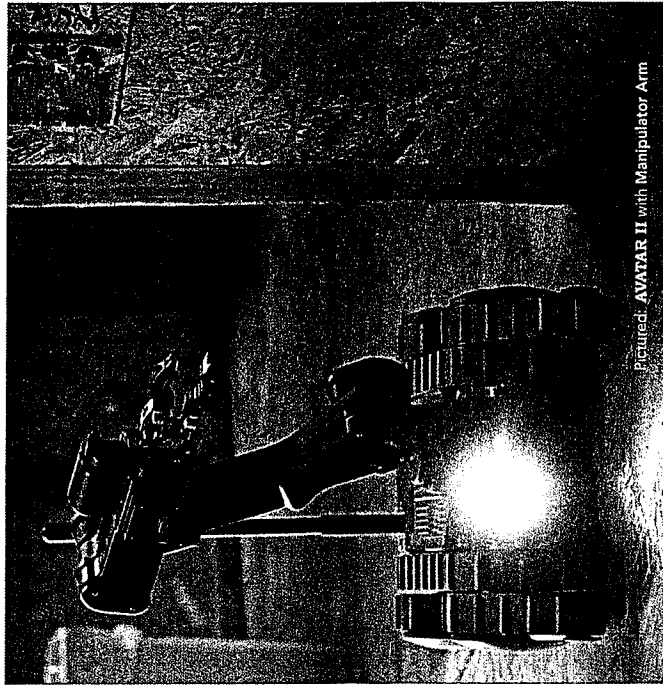
Pictured above: AVATAR II with PTZ Camera and handheld controller



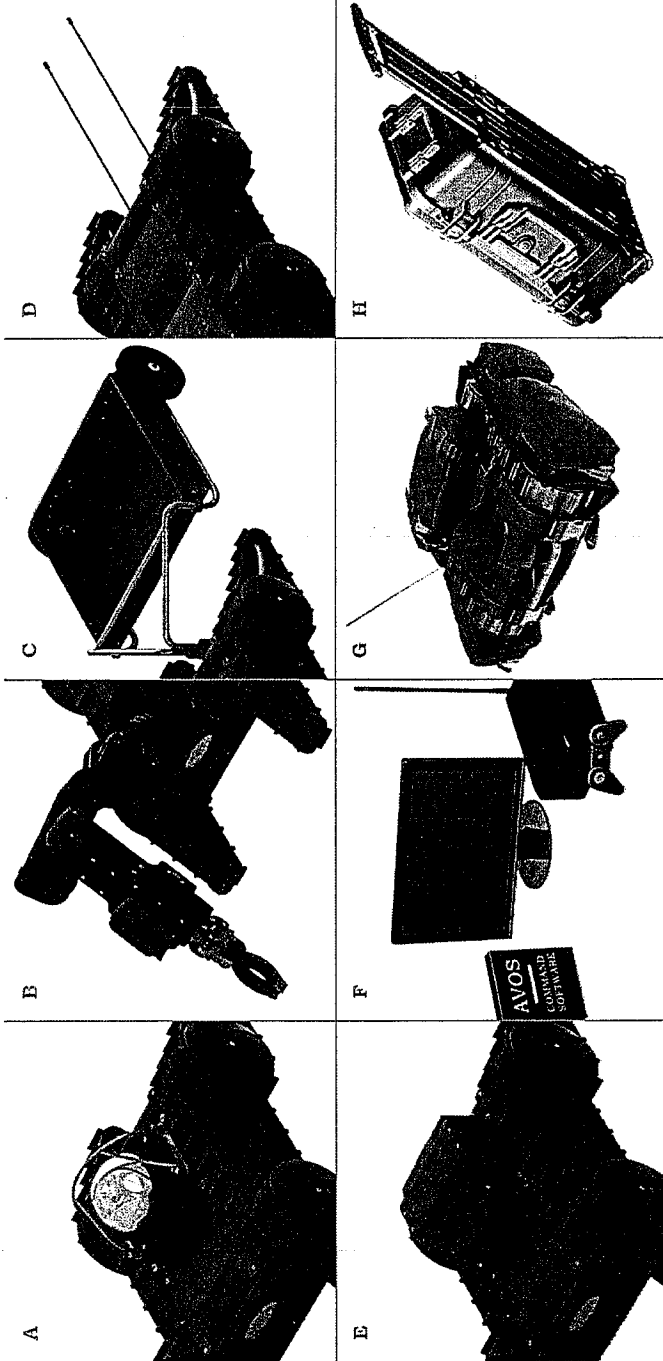
The RoboteX
AVATAR II is
a rugged, affordable,
easy-to-use tactical robot.

AVATAR® II Tactical Robot

YOU NEED THIS ROBOT.



Pictured: AVATAR II with Manipulator Arm



Customize your robot with a variety of AVATAR® II accessories

The AVATAR II is a modular, plug-and-play platform that can be customized with a range of accessories to meet the unique tactical and strategic needs of your team.

YOU NEED THIS ROBOT.

- A PAN-TILT-ZOOM (PTZ) CAMERA** – 360° color IR camera allows you to survey an area and zoom in (up to 100X) on objects of interest.
- B MANIPULATOR ARM** – Five-axis manipulator arm allows you to remotely open doors and manipulate dangerous objects up to 8 lbs. in weight. Comes with integrated color IR camera to enable visibility over tall or elevated objects (up to 30 inches in height).
- C HITCH & TRAILER** – Flatbed trailer can tow up to 30 lbs. of cargo on a flat surface (or 10 lbs. up stairs). Remote latch allows you to disconnect trailer to deliver cargo.
- D HIGH ANGLE STABILIZERS** – Stabilizing rods that attach to back of robot and allow it to climb up over steep inclines and tall objects.
- E 2-IN-1 GAS / RADIATION DETECTOR** – Integrated mount that houses separate radiation (Camberra®) and five-gas (MultiRAE Plus®) detectors. Allows you to view data readouts on the controller's screen. Standalone mounting bracket also available.
- F COMMAND TERMINAL** – Allows you to control robot from a remote computer terminal and view robot's audio/video feeds on an external monitor. Includes flat-screen monitor, external audio/video receiver, antenna, mini-controller, and control software.
- G TACTICAL DEPLOYMENT BACKPACK** – Custom-fitted, hard-shell backpack allows you to carry the AVATAR II (and accessories) and be mission-ready in seconds.
- H ULTRA-DURABLE ROBOT CASE** – Hard-shell rolling case is waterproof and drop-resistant. Facilitates easy transport of robot, controller, batteries, and chargers.

Not shown:

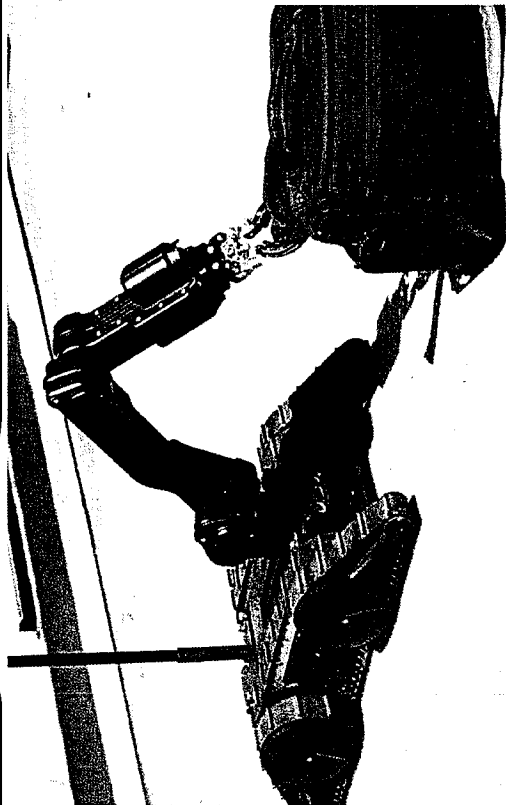
EXTERNAL AUDIO / VIDEO RECEIVER – Allows for remote viewing of the robot's audio/video feed. Includes receiver unit and antenna only.

For a complete and interactive list of AVATAR II options and accessories, go to:

www.robotex.com/build-a-robot/

The AVATAR II is currently helping SWAT and law enforcement officials

across the country explore, engage, and resolve dangerous situations like never before.



AVATAR®II Tactical Robot

“This robot has become extremely vital to our operations. The robot provides us with the safety and comfort of knowing that it keeps our operators out of harm's way... the RoboteX AVATAR is priceless.”

— Officer Johnny Quinones
Chicago Police Department SWAT
Chicago, Illinois

“We deployed the AVATAR recently on a barricaded subject. The robot worked great... it climbed two sets of stairs without a problem, the two way speakers were excellent, and the bubble cam was perfect. By the way, it did scare the subjects. I had to advise them the robot would not hurt them if they just complied — it was humorous.”

— Sgt. Timothy Cullian
St. Louis County Police Department
St. Louis, Missouri

“The RoboteX AVATAR Robot has been nothing short of amazing. The Avatar's superior mobility, in conjunction with its durability and video transmission technology, separates it from any other tool we have used to date. Bottom line, this thing is a game changer. Our team can't say enough about this tool.”

— Sgt. Troy Greene
Saint Paul Police Department SWAT Team
Saint Paul, Minnesota

“On one callout, the AVATAR was used to clear a house and open several doors that were partially closed. On another callout, it was used to locate a subject that was fatally wounded after firing at officers. The robot is a great piece of equipment that all SWAT teams could benefit from.”

— Officer Travis Bailew
Texas Rangers SWAT Team
Austin, Texas

Background

After losing several officers in the line of duty, the Oakland, California Police Department SWAT team reevaluated their tactics and substantially modified their standard operating procedures. Now, the Oakland Police Department SWAT team will not enter a residence until a RoboteX AVATAR has cleared the area first.

Event

In August 2011, the Oakland Police Department SWAT team served a search warrant on a residence. The team assigned to the operation consisted of 43 members, including a sniper team, a hostage negotiation team, a perimeter team, an entry team, support staff, a helicopter — and an AVATAR robot.

The team arrived at the residence at approximately 5:00 AM and took up their positions around the house. A helicopter directed its spotlight on the home and a SWAT Officer, using a loudspeaker, ordered everybody in the house to evacuate. Shortly thereafter, three persons emerged from the front door of the home and were immediately placed in custody. However, the SWAT team still did not know what was left inside the house — guns, drugs, a bomb, or even more armed suspects waiting in ambush.

The AVATAR Solution

The AVATAR played a critical role in allowing the Oakland Police Department SWAT team to finish the mission safely and efficiently. A SWAT Officer drove the robot towards the home from the safety of an armored vehicle. The robot mounted a curb, sped through wet grass in the front yard, and finally climbed two stairs before entering through the home's front door. The robot proceeded to move up another staircase and through each room of the home, navigating over toppled pieces of furniture, clothing, food, and drug paraphernalia. On several occasions, the Officer activated the AVATAR's pan-tilt-zoom camera to scan for dangerous ordnance and additional suspects. Using this method, the SWAT Officer identified several shotguns in a bedroom, and he was able to clear the rest of the house rapidly.

After completing the survey of the house with the AVATAR robot, the SWAT team sent in their Entry Team. An Oakland Police Department SWAT Officer later testified, "Before we had your robot, that process [of clearing the house] took several hours." As a result of the robot's reconnaissance work, the Entry Team was able to proceed through the home at a rapid pace, clearing it in less than five minutes and eliminating a great deal of risk from a dangerous situation.

For the Oakland Police Department SWAT team, the AVATAR is an essential piece of tactical equipment that has been fully incorporated into their standard operating procedures. Specifically, the Oakland Police Department SWAT team regards an area, building, or home as unsafe until surveyed and cleared by an AVATAR robot.

For SWAT teams and first responders at large, the choice is clear. The RoboteX AVATAR is easy-to-use, affordable, and reliable. It is the first set of eyes and ears on the ground. It explores dangerous situations remotely and securely. It saves time, money, and lives.



AVATAR® Case Study

Oakland, California Police
Department SWAT Operation

August 2011
Oakland, California

