Peraton REMOTEC

ANDROS[™] SPARTAN UNMANNED GROUND VEHICLE SYSTEM

The Andros[™] Spartan was designed based on the success, reliability and versatility of the 6 series platform, our flagship platform for the past three decades. The Andros Spartan incorporates the same proven chassis design of the Andros[™] F6 and adds the highly dexterous manipulation capabilities of the Andros[™] FX. Preserving the legacy of the Andros[™] 6 series, the Andros Spartan integrates new technologies, optimizes the user experience, and reduces time on target. Updates that make the Andros Spartan an industry leader.

Peraton drives missions of consequence spanning the globe and extending to the farthest reaches of the galaxy. As the world's leading mission capability integrator, we are a trusted provider of highly differentiated national security solutions and technologies that keep people safe and secure. Peraton serves as a valued partner to essential government agencies, including the Intelligence Community, Department of Defense, Department of Health and Human Services, and NASA. Every day, our 10,000 employees do the can't be done, solving the most daunting challenges facing our customers.

VEHICLE & CHASSIS

- · Dual articulating tracks with quick release wheels provide modular mobility for both indoor and outdoor use.
- Spartan is powered by nine BB2590 batteries, and vehicle speed is 3.3 mph (5.3 kph) with a runtime of 6+ hours.

TECHNICAL SPECIFICATIONS

DIMENSIONS

- Height: 55" (1397 mm)
- Width: 29" (737 mm); 17.5" (445 mm) w/out wheels
- · Length: 42" (1066 mm) tracks up

WEIGHT

• 530 lbs (240 kg)

MOBILITY

- Articulated tracks with position feedback and quick release wheels
- Slope: 45° incline and 37° stairs
- Speed: 0-3.4 mph (0-5.3 kph)
- Traverse: Gap opening up to 21" (533 mm) and Obstacles up to 18" (635 mm)
- Turning: 55" (1397 mm)

MANIPULATOR

- Variable Speed Control for precision
- Dual-sided guick change accessory mounting system
- Torso Rotate: +/- 150° w/position feedback
- Shoulder: 221° w/position feedback
- Elbow: 223° w/position feedback
- Upper Arm Roll: +/-170° w/position feedback
- Wrist Pitch: 215° w/position feedback
- Wrist extend: 6" (152.4 mm)
- Grip rotate: 360° continuous w/feedback
- Gripper: 0-8" (0-203 mm) open/close
- Gripper Force: 0-125 psi (0-609 kPa)
- Gripper Range Estimator: 3.9 to 31.5 in (10-80 cm)
- Lifting: 275 lbs at 18" (125 kg at 457 mm); 80 lbs (36 kg) at full extension
- Vertical Reach: 126 in (3.2 m) with tracks down and arm fully extended
- Horizontal Reach: 73 in (1.9 m) from front of vehicle chassis

CAMERAS

Surveillance:

- Extra low light color pan/tilt/zoom with full 360° continuous pan, 180° tilt
- Auto/Manual focus and iris
- LED lights with remote switching from white to IR
- Vertical Surveillance Camera Extend: 24" (609 mm)

Arm:

- · Fixed color camera with wide angle lens
- Optional Surveillance Pan/Tilt camera with optional thermal camera

Front and Rear Drive:

- Color camera that switches to B&W in low lights
- conditions with fixed focus and auto iris
- Sensitive to IR illumination

8 DEGREE OF FREEDOM MANIPULATOR

- The addition of a roll joint between the elbow and wrist provides the ability to access areas with limited space as well as maneuver around and interrogate vehicles that have traditionally required a large working area.
- Spartan has significantly increased lift capacity of objects and greater dexterity for handling more challenging missions.
- The addition of a gripper palm camera with lights and range estimator allow for faster, more accurate grasping.

OPERATOR CONTROL UNIT

- OCU consists of a ruggedized laptop with game style controller and optional large, external touchscreen.
- · 3D vehicle avatar helps operators view and visualize the configuration of the arm and articulators.
- Up to 4 cameras can be viewed at the same time. Single camera mode offers three picture-in-picture camera windows that can be moved and resized.
- Diagnostic and maintenance information is provided via touch screen graphics.

Reach and Payload Vertical Horizontal Reach Reach 126 In 73 In (3.2m) (1.9m) Stair Climbing **Confined Space** 29 In (74cm) 55 In (1.4 m) 37° Stairs Neutral Turn **Negotiating Trenches** 55 In (1.4m) 21 In **Communication Link Options** 1000 m (3280 ft) LOS Radio 500m (1640ft) NLOS Radio • 365m (1200ft) Fiber

HAVE OUESTIONS?

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Palm Camera:

 Color camera that switches to B&W in low light conditions with fixed focus and auto iris Sensitive to IR illumination

Optional Thermal Camera:

Mounted in Surveillance Pan/Tilt

Optional Tool Camera:

- B&W low light with fixed focus and auto iris
- Optional laser enhancing lens
- Sensitive to IR illumination

OPERATOR CONTROL UNIT

- Ruagedized COTS (commercial off the shelf) Laptop w/touchscreen
- Game Style Controller
- Truck Mount Kit for power and communication link integration
- BB2590 battery with 110VAC/220VAC charger
- · Optional legacy style switchbox controller

AUDIO

 2 Way audio system with weatherproof speaker and microphone

COMMUNICATION

- 1200 ft (366 m) Fiber Optic Cable Reel
- 5W COFDM, License Required
- 1000 m+ Line of Sight (LOS)
- 500 m Non-line of Sight (NLOS)

ELECTRICAL

- 7 Isolated firing circuits: 24VDC
- Power supply: 32VDC
- 9 BB2590 Batteries, 92aH
- 110VAC/220VAC charger, two 6 bay BB250

ENVIRONMENTAL

- Designed to meet IP65
- · Sealed, weather resistant enclosure
- Wet or dry surfaces
- Operating temperatures -20° C to +50°C

ACCESSORIES

Supports Andros legacy accessories to include cutting, breaching, sensing, investigating and hauling

OTHER

• 2.5 days of operator/maintenance training in Clinton, TN One year limited warranty