



# Mini-CALIBER<sup>®</sup> SWAT ROBOT

## MAN PORTABLE ROBOT

The lightweight, Mini-CALIBER<sup>®</sup> is a one man portable robot for SWAT and EOD operators. Developed for tactical missions, the robot is simple to operate and quick to deploy, providing fast action to search rooms, stairwells, and confined spaces.

## MISSION CONFIGURABLE

The Mini-CALIBER<sup>®</sup> includes a manipulator arm on a rotating turret with a 10X zoom camera on the claw. The arm will lift objects up to 15 lbs (6.8 kg), deliver packages and open doors. The zoom camera will reach up to 64" (163 cm), high enough to look into car windows. The horizontal reach of 53" (135 cm) allows for under vehicle searches. Movement of the turret and wrist enables the claw mounted 10X zoom camera to pan and tilt.

## PAYLOADS

CBRNE detectors and sensors can be mounted onto the deck of the robot chassis, assisting first responders in identifying hazardous items. Various types of recoilless disrupters can be mounted using disrupter mounts specially designed for the Robot.

## MOBILITY

The compact platform measures less than 16" (41 cm) wide, allowing it to drive down aisles of planes, buses, and trains. Powerful 24V DC variable drive motors achieve speeds up to 2 mph (3.2 km/h) and handle rough terrain, rocks, and snow with ease. The rubber tracks and articulating front and rear flippers allow the robot to effortlessly climb stairs and inclines between 40° and 45°.

## COMMAND & CONTROL UNIT (CCU)

Weighing only 5.3 lbs (2.4 kg) the handheld CCU is truly portable and intuitive to use. The robot is controlled through a variable speed joystick and incorporates 2-way audio for crisis negotiation. Clear images are transmitted to the 5.8" (14.7 cm) LCD daylight readable screen over a wireless RF system.

## MULTIPLE MISSIONS

- Surveillance and reconnaissance
- Inspection of planes, trains, and buses
- Barricaded suspect and crisis negotiation
- Deliver and retrieve packages
- Open doors and move objects
- Under-vehicle inspection
- IEDD identification and disposal
- Intelligence gathering



Mini-CALIBER<sup>®</sup>  
One Man Portable Robot

## Standard Features

FEATURE	DESCRIPTION
Drive System	<ul style="list-style-type: none"> <li>• Variable drive speed up to 2 mph (3.2 km/h)</li> <li>• 2 drive modes - Stair Climbing and Standard</li> <li>• Chain Drive motors with rubber tracks</li> <li>• 0° turning circle</li> </ul>
Front/Rear Flippers	<ul style="list-style-type: none"> <li>• Front &amp; Rear articulating flippers for stair climbing and obstacle clearance</li> <li>• -50° - +160° flipper rotation with positional feedback</li> <li>• Pre-set position for stair approach with LED indicator</li> <li>• Pre-set position for stair climbing (flat) with LED indicator</li> <li>• Pre-set position for stowage (home button) with LED indicator</li> </ul>
Claw Arm	<ul style="list-style-type: none"> <li>• 5 axis arm on rotating turret</li> <li>• Turret rotate: + / - 100°</li> <li>• Shoulder range: 0°-220°</li> <li>• Claw rotate: 360° Continuous Rotation</li> <li>• Max 66" (168 cm) Vertical Reach</li> <li>• Max 52" (132 cm) Horizontal Reach</li> <li>• 15 lbs (6.8 kg) lift capacity</li> <li>• Wide angle Claw Camera</li> <li>• Color zoom camera with 10x optical zoom</li> <li>• CCU LED indicator for turret home position (allows for safe stowage of arm)</li> </ul>
PTZ Camera	<ul style="list-style-type: none"> <li>• Pan-Tilt-Zoom Color Camera with 10x optical zoom and LED Lights</li> <li>• Mountable in different positions</li> </ul>
Front/Rear Drive Cameras	Color CCD Cameras with IR light.
Mast Camera	Wide angle Rear Mast Camera for overhead view of robot and claw arm.
LED Lights	2 sets of LED lights.
Robot Battery Pack	<ul style="list-style-type: none"> <li>• 24V DC, 11.1Ah Lithium-Iron-Phosphate (LFP) rechargeable batteries</li> <li>• Battery Chargers included</li> </ul>
Command & Control Unit (CCU)	<ul style="list-style-type: none"> <li>• Handheld, portable CCU</li> <li>• Variable Speed Joystick Control</li> <li>• 5.8" (14.7 cm) LCD daylight readable anti-glare screen</li> <li>• Weight: 5.6 lbs (2.5 kg); 6 lbs (2.7 kg) w/ Firing Circuit Key</li> <li>• Lithium-Ion Battery</li> <li>• LED function status indicator</li> <li>• Diagnostic tether cable</li> <li>• Weather resistant</li> </ul>
RF Communications	<ul style="list-style-type: none"> <li>• Wireless RF Video and Data</li> <li>• Approximately 1,000' (300 m) operating distance LOS</li> </ul>
Digital 2 - Way Audio	<ul style="list-style-type: none"> <li>• Digital 2-way (talk/listen)</li> <li>• Push to Talk</li> <li>• Headset with adjustable volume</li> <li>• Omni-directional microphone on robot</li> <li>• Weather resistant speaker</li> </ul>
Training Videos	Included on training tablet.
<b>WARRANTY</b>	<b>2-YEAR LIMITED WARRANTY</b>
<b>TECHNICAL SUPPORT</b>	<b>UNLIMITED TECHNICAL SUPPORT</b> <b>customerservice@icortechnology.com</b>

## Optional Features

FEATURE	DESCRIPTION
Mini-CALIBER <sup>®</sup> RF Range Extender	Increase the wireless operating Video/Data range of your Mini-CALIBER <sup>®</sup> robot with the Mini-CALIBER <sup>®</sup> RF Range Extender mounted on a portable tripod or the suction cup and magnetic mounts.
FLIR <sup>®</sup> Thermal Image Camera	The thermal imaging camera displays heat signatures in color and is mounted in place of the PTZ camera.
Claw Attachment Kit	Mini-CALIBER <sup>®</sup> claw attachment kit consisting of specially designed tools designed to keep responders out of harm's way. Accessories include clothes cutter, wire cutter, box cutter, tire slashers, and tools.
Firing System	One isolated firing circuit with removable key switch for recoilless disrupters, RSP tools and/or breaching.
Shock Tube Initiator	One Channel Shock Tube Initiator with attachment mounts.
Handheld Screen	Secondary portable wireless RF LCD Screen to see images from robot cameras. Ideal for SWAT entry teams <i>(Note: Available for standard video system only).</i>
Mini-CALIBER <sup>®</sup> Backpack	Custom designed backpack for easy deployment of the robot. Backpack designed with cushion support and straps for stability and comfort during transportation.
Training Course	One day Robot Operation and Maintenance course (either at ICOR or customer's facility).

## Specifications

Mission Time	Up to 3 - 5 hours (mission dependent)
Width	16" (41 cm)
Height	15" (38 cm)
Length	<ul style="list-style-type: none"> <li>• 24" (61 cm) Flippers Stowed</li> <li>• 36" (91 cm) Flippers Deployed</li> </ul>
Ground Clearance	1.5" (3.8 cm)
Weight	64 lbs (29 kg) with batteries
Stair Climbing Angle	40° - 45° depending on stair structure (with front and rear flippers deployed)
Weather Resistance	Environmentally sealed; chem.-bio wash down capability.
Third Party Tested	DHS, NTOA, and NIST

