

# CALIBER® T5 EOD / SWAT ROBOT



Sharing the same core design principles as the MK3 CALIBER® robot, the CALIBER® T5 packs mission critical features into a smaller, lighter, and narrower robot chassis. What makes the CALIBER® T5 different is a single agile robotic arm with 5 degrees of movement including a turret, shoulder, elbow, wrist, and claw rotating joint.

## MOBILITY

Measuring only 17" (43 cm) wide, the CALIBER® T5 is best suited for EOD and SWAT teams needing to deploy a compact robot into narrow passages such as buses, trains, and planes. Weighing in at only 150 lbs (68 kg), the robot can be quickly deployed from a trunk of a car. With a vertical reach of 66" (168 cm), the CALIBER® T5 can reach most suspicious devices. The optional Arm Extension Kit extends the reach of the arm to 105" (267 cm); allowing for easy access to the overhead compartments in airplanes or buses.

## MANEUVERABLE

The CALIBER® T5 accelerates up to 5 mph (8 km/h) due to its powerful drive motor with rubber tracks on a 3-speed drive system. The low end speed provides the torque needed to climb steep stairs and easily navigate all types of rugged terrain including snow and sand.

## WEAPONS SYSTEM

The CALIBER® T5 comes equipped with a single Disruptor Mount and is interoperable with most popular brands of recoilless disruptors. Aiming the weapon is accomplished with integrated cross-hairs on the CCU screen, 2 green lasers and 1 color camera. Four independent firing circuits are used to initiate recoilless disruptors, and other RSP or x-ray systems.

## COMMAND & CONTROL UNIT (CCU)

The weather resistant CCU's low reflection 15" (38 cm) LCD color screen shows clear images in both bright and low light conditions from any of the 5 color cameras on the robot. The CCU provides precise operation of the CALIBER® T5 using the variable speed joystick and real-time dedicated Pan-Tilt-Zoom (PTZ) camera joystick. It also provides easy operation through its on deck 3-D robot layout, LED button indicators, and user feedback.

## MISSION TIME

Two robot battery packs are included in the standard package. Each battery pack powers the robot for 2 – 4 hours (mission dependent) on a single charge. Batteries can be swapped in seconds, which extends mission duration.



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## Standard Features

FEATURE	DESCRIPTION
Drive System	<ul style="list-style-type: none"> <li>• 3-speed drive system</li> <li>• 6 solid core wheels with quick release coupler</li> <li>• Rubber Tracks over solid core wheels</li> <li>• Manual Anti-flip bar for climbing stairs</li> <li>• Low Gear: Stair Climbing &gt; 1 mph (1.6 km/h)</li> <li>• Med. Gear: 0-2 mph (0-3.2 km/h)</li> <li>• High Gear: 0-5 mph (0-8 km/h)</li> <li>• 0° turning Circle</li> </ul>
Robotic Claw on Turreted Arm	<ul style="list-style-type: none"> <li>• Claw with 360° continuous rotation, 10" (25 cm) opening and rubber lined effectors</li> <li>• 18 lbs (8 kg) - Lift Capacity with <i>Arm Extended</i></li> <li>• 45 lbs (20 kg) - Lift Capacity with <i>Arm Retracted</i></li> <li>• 0 - 200° Shoulder Rotation</li> <li>• +/- 130° Turret and Arm Rotation</li> <li>• 0 - 260° Elbow Rotation</li> <li>• 66" (168 cm) Vertical Reach</li> <li>• 47" (119 cm) Horizontal Reach from leading edge of chassis</li> <li>• LED lights</li> </ul>
Firing System	4 isolated circuits.
Disruptor Mount	Single Mounting bracket for Recoilless Disruptor <i>(*Note: use recoilless disruptors only, call for custom systems).</i>
Front/Rear Drive Cameras	Color CCD cameras with IR light.
PTZ Camera	<ul style="list-style-type: none"> <li>• Pan- Tilt-Zoom color camera</li> <li>• 36X optical zoom with LED lights</li> <li>• 360° continuous rotation</li> <li>• Folds down for transportation</li> <li>• Manual Telescopic height adjustment</li> </ul>
Claw Camera	Color CCD camera with LED Lights.
Weapons Camera	<ul style="list-style-type: none"> <li>• Color CCD camera with LED lights</li> <li>• Green lasers for aiming Disruptors</li> </ul>
Hardwire Tether	Standard 500 ft. (152 m) tether reel with Slip Ring; used as an alternative to RF controls.
Robot Battery Pack	2 x 8 Ah 24V DC lead acid, rechargeable, quick change.
Battery Chargers	<ul style="list-style-type: none"> <li>• 1 x Robot: 24 VDC/110 or 220 VAC</li> <li>• 1 x CCU: 12 VDC/110 or 220 VAC</li> </ul>
CCU	<ul style="list-style-type: none"> <li>• Command and Control Unit to operate robot</li> <li>• Multi-function control, variable speed joystick</li> <li>• 15" (38 cm) daylight readable LCD screen</li> <li>• Battery status indicator</li> <li>• Video jack output to auxiliary monitor</li> <li>• Audio output and MP3 audio input</li> <li>• Weather resistant</li> </ul>
RF System	Data and Video RF wireless systems.
Digital 2 - Way Audio	Two-way (talk/listen) PTT communication with headset; audio in/out ports to connect to MP3 player or external speakers.
Training Course	One day Robot Operation and Maintenance course (either at ICOR or customer's facility).
<b>WARRANTY</b>	<b>2-YEAR LIMITED WARRANTY</b>
<b>TECHNICAL SUPPORT</b>	<b>UNLIMITED TECHNICAL SUPPORT</b> customerservice@icortechnology.com

## Optional Features

FEATURE	DESCRIPTION
Command Post Video Transmitter (CPV)	The CPV allows real time viewing of CCU video, broadcast to 4 devices simultaneously as far as 300' (91m) LOS. With a 12V battery the CPV can last up to 5 hours (mission dependent).
Digital COFDM Video System	Upgrade to a true COFDM digital video system. Ensures transmission of video images up to 3280' (1000 m)LOS in optimum conditions. Ideal for mobile and urban environments.
Picture-in-Picture	Quad Screen Picture-in-Picture (PIP) allows for simultaneous viewing of four cameras.
Digital Video Recorder	Integrated into the hardshell case of the CALIBER® CCU. The DVR captures video and pictures up to 320GB. Built-in 5" (13 cm) LCD Touch Screen.
FLIR® Thermal Image Camera	The thermal imaging camera displays heat signatures in color and is mounted in place of the PTZ camera.
Claw Attachment Kit	Set of tools for CALIBER® claw includes: window breaker, tire deflator, finger extension, cutting hook, utility knife, multiple effectors and hook & line accessories.
Arm Extension Kit	Quick connect telescoping Arm Extension fits onto the existing arm, extends reach up to 105" (267 cm) of claw.
Spare Parts Kit	Set of basic spare parts for CALIBER® Robot.
X-ray Mount	X-ray mounting bracket for major x-ray systems.
Truck Mount	External truck brackets for mounting RF antennas outside command vehicle.
Handheld Controller Unit	Lightweight HCU connected via tether input port provides full motor control of robotic arm, drive system and LED lights. Wireless Bluetooth model also available.
Handheld Screen	Secondary portable wireless RF LCD Screen to see images from robot cameras. Ideal for SWAT entry teams.
Shock Tube Initiator	2-Channel Shock Tube Initiator with attachment mounts.
Auxiliary Pole Camera	Manually extendable Camera Pole fastens onto disruptor mount to provide surveillance up to 111" (282cm) above ground, or provides remote under-vehicle video inspections.
RF Extender	Increases Video/Data distance up to 500 ft (152 m) and overcome LOS obstacles.
Motorized PTZ	Remotely controlled telescoping PTZ mast allows the camera to reach height of 56" (142cm) from the ground.
Motorized Anti-flip	Remotely stowable anti-flip bar allows for climbing stairs and navigating confined spaces by shortening robot's chassis.
Fiber Optic Reel	1000' (305 m) milspec fiber-optic tether reel with motorized spooler for use as a backup to RF control.

## Specifications

Mission Time	2 - 4 hours +, mission dependent
Width	17" (43 cm)
Height (Stowed Position)	22" (56 cm)
Length	36" (91 cm)
Ground Clearance	2.75" (7 cm) - allows for driving in snow and sand
Weight	150 lbs (68 kg) with batteries
Drag Capacity	200 lbs (91 kg)
Stair Climbing	Climbs 8" (20 cm) stairs at 45° with suitable traction
Weather Resistance	Environmentally sealed; chem.-bio wash down capability
Third Party Tested	NIST, NRC (MIL-STD-810G)