

CALIBER® MK4 LARGE EOD ROBOT

MULTI-USE

The CALIBER® MK4 EOD robot is the biggest robot in the CALIBER® family with unprecedented towing and dragging capability coupled with speed, agility, and dexterity.

COST EFFICIENT / MODULAR

The CALIBER® MK4 offers mission critical dependent features at a low cost. The robot's modular design, based on bomb technicians' recommendations, results in reduced maintenance costs through easy platform upgrades, field repair, and part replacement.

MANEUVERABLE

The variable speed drive system accelerates the robot up to 2 mph (3.2 km/h). The low end torque allows the CALIBER® MK4 to climb stairs and drag a fully loaded battle wagon for VBIED countermeasures. The rubber tracks can maneuver over various types of rugged terrain including snow, mud, and sand.

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 7 color cameras on the robot. The CCU provides precise operation of the CALIBER® MK4 using the variable speed joystick and real-time dedicated Pan-Tilt-Zoom (PTZ) Camera joystick. Also included is a 3-D avatar that provides real-time positional feedback on the actual position of the robot. Automatic preset positioning facilitates robot deployment.

MISSION TIME

One 48V DC quick change battery pack extends your mission time by up to 5 hours (mission dependent). It also reduces the need to change batteries during the mission. The CCU screen indicates real-time battery status.

Articulating Twin Disruptor Turret



9 ft. PTZ (2.75 m) Camera Vertical Reach



Lifts up to 200 lbs (90 kg)



Outriggers Stabilize Chassis



Picatinny rails, 12" (30 cm) Opening



Weapons and Claw Distance Sensors



Command and Control Unit (CCU) with real-time 3-D robot avatar



Equipped with 7 Cameras



CALIBER® MK4 Large EOD Robot

Standard Features

FEATURE	DESCRIPTION
Drive System	<ul style="list-style-type: none"> Tracked with 3-speed drive system Speed up to 2 mph (3.2 km/h)
CCU	<ul style="list-style-type: none"> Command Control Unit to operate robot Multi-function control, variable speed joystick 2 x 15" (38 cm) daylight readable touch screen 3-D avatar with real-time positional feedback Auto stow and arm ready presets Firing key, arm & fire buttons Weather resistant Operates from AC power Ports for CPV, DVR and AUX Video RCA Quad screen Picture-in-Picture (PIP)
RF System	Wireless data and digital COFDM video system ensures transmission of video images free of distortion up to 1 km LOS. Ideal for mobile and urban environments.
Robot Battery Pack	26 Ah, 48V DC, quick-change, rechargeable, lead-acid battery.
Battery Chargers	<ul style="list-style-type: none"> 1 x Smart robot battery charger with balanced individual cell charging 24V DC/110 or 220V AC
Track System	<ul style="list-style-type: none"> Rubber Track System Manual quick release to shift drivetrain into neutral
Lift Capacity	<ul style="list-style-type: none"> Arm Retracted: 200 lbs (90 kg) Arm Extended with Outriggers: 100 lbs (45 kg)
Claw Arm	<ul style="list-style-type: none"> 5 axis arm including 360° rotating claw 2 x Standard Picatinny rail on claw 1 x Color CCD camera 1 x LED light 12" (30 cm) Gripper opening 113" (287 cm) Vertical Reach 86" (218 cm) Horizontal Reach from Chassis 2 x Firing Circuit 1x Green Aiming Laser 100 lbs (45 kg) clamping force Distance measuring sensor
Weapons Arm	<ul style="list-style-type: none"> 2 x Color CCD Weapon Cameras 4 x Green Aiming Lasers 2 x Firing Circuits (2 x weapons) 2 X LED lights Distance measuring sensor On screen Cross hairs for aiming Turret Rotate: +/-90° Turret Tilt: 0-90°
PTZ Camera	<ul style="list-style-type: none"> Motorized Pan-Tilt-Zoom (PTZ) color CCD camera 36X optical zoom color camera with LED lights 360° continuous rotation Preset home position Motorized telescopic height adjustment 9 ft. (2.7 m)
Front/Rear Drive Cameras	Color CCD cameras with IR light.
Shoulder Camera	Color CCD camera.
LED Lights	Front, Rear, Flood Lights, Arms and PTZ camera.
Tow Hitch	Motorized Tow Hitch: remotely adjustable tow hitch for towing battle wagon. Can be adjusted for Vertical or Horizontal clamping.
Walkalong controller	Wired controller for loading and unloading robot.
Hardwire Tether	Standard 500 ft. (152 m) tether reel with Slip Ring; used as an alternative to RF control.
Digital 2 - Way Audio	Two-way communication (talk/listen). PTT with volume adjustable headset.
Concealed Off Switch	Hidden on/off switch.
Training Course	Robot Operation and Maintenance course (either at ICOR or customer's facility).

WARRANTY	2-YEAR LIMITED WARRANTY
TECHNICAL SUPPORT	UNLIMITED TECHNICAL SUPPORT customerservice@icortechology.com

Optional Features

FEATURE	DESCRIPTION
Spare Parts Kit	Set of basic spare parts for CALIBER® robot.
X-ray Mount	X-ray mounting bracket for major X-ray brands and OpenVision™ live video X-ray system.
Truck Mount	External truck brackets for wireless system.
Shock Tube Initiator	2 x 2-Channel Shock Tube Initiator with attachment mounts on weapons and/or claw arm.
FLIR® Thermal Image Camera	The thermal imaging camera displays heat signatures in color and is mounted in place of the PTZ camera.
Claw Kit	Set of tools for the MK4 CALIBER® claw that includes: window breaker, tire deflator, finger extension, cutting hook, utility knife, multiple effectors and hook & line accessories, and digging/probing tools.
CCU Power Pack	The 48VDC CCU Power Pack powers the CCU when AC power is not available and is ideal for using the CCU in remote locations.
Universal Disruptor Mount	Disruptors mount with interchangeable mounting blocks for commonly used disruptors.
Digital Video Recorder	The DVR captures video and pictures up to 320GB. Built-in 5" (13 cm) LCD Touch Screen.
Fiber Optic Reel	1000' (305m) milspec fiber-optic tether reel with motorized spooler for use as a backup to RF control.

Specifications

Mission Time	2 – 5 hours+ (mission dependent)
Width	29.5" (75 cm)
Height (Stowed Position)	34.5" (87 cm)
Length	55" (140 cm)
Weight	735 lbs (333 kg) with batteries
Stair Climbing Angle	40°
Weather Resistance	Environmentally sealed; chem.-bio wash down capability



CALIBER® MK4 SPECIFICATIONS