

SEA MACHINES 300

AUTONOMOUS CONTROL SYSTEM FOR COMMERCIAL VESSELS

RETROFIT-READY TECHNOLOGY



- **Control** via autonomy computer or joystick
- **Intuitive** user interface for remote operator
- **Payload** control & stream-from-ship data
- **Communication**, via line-of-sight or over-the-horizon

SEA MACHINES 300 CONTROL INTERFACES

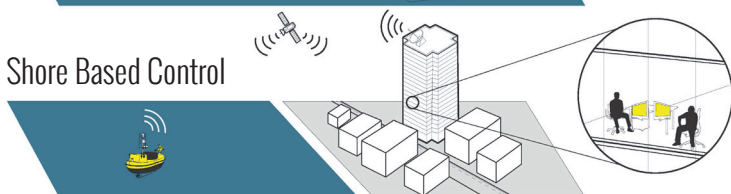
Joystick Control



Shipboard Control



Shore Based Control



SEA MACHINES

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ONBOARD CABINET



Intelligent Control Hub
with Flexible Sensor Integration

Primary Hardware	Description
Cabinet Enclosure	IP67 Rated Industrial Grade Aluminum
Processors	Siemens S7 PLC, Industrial Linux Computer
UI (Local)	Siemens HMI Touch Panel
Components	100% Solid State, Ruggedized
Certifications	By most recognized authorities (ABS, DNV)
Temperature Rating	0-60° C
Machinery Integration	Compatibility
Engines	Electronic or Mechanical
Steering	Electronic or Hydraulic
Transmission	Clutch & Gear Control
Auxiliaries	Per Operator Requirements
Sensor Integration	Sensor Input
Differential GPS	Heading and Position
AIS	Ship Traffic Sensor
Radar	ARPA Feed
Image/Video	Optional 360° Camera
Depth Sounder	Sounder Feed
Payload Control	Applications
Sonar	Survey
Winches / Loading	Tugs / Aquaculture
Robotic Arm/Crane	Equipment Deployment
ROV	Research, Mining, Recovery
Moonpool	Equipment Deployment

REMOTE USER INTERFACES



Rugged Intuitive Interface
& Control Devices

User Interfaces	Component Type
Graphical Remote User Control	Ruggedized Laptop with Aux Screens
Direct Vessel Control	Industrial Joystick Controller
Autonomous Modes	Capabilities
Planned Route	Grids, Patrol, Dynamic
Collaborative	Escort, Swarm, Synch
Waypoints	Planned Routing or Dynamic
Safe Routing	ECDIS Integrated
Obstacle Avoidance	Multi Sensor Detection
Communications	Type
Inshore / Nearshore	IP Radio, 4G/LTE
IP Radio 3/5 Ghz	IP Radio 5Ghz
Long Range (>5nm)	Satellite (L-band, VSAT KU, KA)
Machinery Parameters	Commands & Alarms
Engine Start/Stop	Remote Start / Stop
RPM	Throttle Command
Engine Temp / Engine Oil Pressure	Engine Alarms / Faults
Gear Oil Pressure	Pressure Alarms
Fuel Oil	Tank Levels
Angle Indicator	Degrees PRT/STBD
Interruptions	Safety Devices
Loss of Communications	All stop, Hold Station, Other
Manual Emergency Stop	ALL STOP on all interfaces
Failure Modes	Pre-programmed or customized

INSTALLATION SUPPORT

For new-build or retrofit applications, work with our qualified team and a network of installers to create a solution for your mission.

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