



CAPABILITY STATEMENT

Founded in 2009, eSonar Inc. is an incorporated business located in St. John's, Canada specializing in sensors, software, firmware, and PCB design for custom ocean systems. Our custom engineering design services specialize in underwater acoustic applications. We have extensive experience in design, prototyping, and new product development such as transducers, hydrophones, digitizers, and embedded technologies, including supporting firmware and software. Our team of P.Eng. certified engineers are ready to help your team with new or ongoing projects. Our extended development team model has helped companies reach the market sooner, and we support mutually beneficial long-term supply-chain relationships.

CORE CAPABILITIES

Underwater Acoustic Design

Product customization and full bespoke design of acoustic sensors, receivers, transducers, instrumentation; pressure housings, digitizers, hydrophone arrays, including system level integration, and/or individual components.

Hydrophone Arrays & Subsea Variable Buoyancy Engines

Microprocessor controlled autonomous capability for buoyancy driven motion in the water column, can include hydrophones, 32-channel digitizers, acoustic telemetry, and vertical profiling with capability to record, store, process and transmit data from the marine environment.

AUV Micro-power Sonar

AUV situational awareness technologies utilizing small, ultra-low power, state-of-the-art sonar for increased operational efficiency and longer deployment times, providing the vehicle with truly autonomous operation with unsurpassed real-time sonar performance.

Acoustic Data Telemetry

Expertise in transducer design, MFSK encoding techniques, transmitters, power amplifiers, preamps, receivers, signal processing and embedded firmware for ultra-high reliability acoustic data transmission in underwater environments. Originally developed for critical military applications.

Design, Prototype Development, and Testing

Extensive experience concept, validation, and design services, including third-party systems integration. Our collective staff experience manifests more than 150 years of subsea design and product development experience.

We use SolidWorks, Fusion 360, AutoCAD Eagle, MATLAB, Microchip PIC, Atmel, Linux and more. A specific IP-focused capabilities list is available for review on execution of an NDA.

eSonar Inc.

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For additional information about eSonar's capabilities, contact our office (709) 726-0338, email us at info@e-sonar.ca, or visit our website at www.e-sonar.ca to learn more.

COMPANY INFORMATION

Legal Name: E Sonar Inc.

BN: 824104624

Year of Incorporation: 2009

Facilities: 3500sq.ft. Office and Lab

NAICS Codes:

541710 Research and development in the physical, engineering and life sciences

541330 Engineering services

541514 Computer systems design and related services

541715 Oceanographic research and development laboratories or services

COMPLETED PROJECTS

DND (Canada): AUV Detection System

DFO (Canada): Marine Mammal Detection

Ashored Innovations: On Demand Acoustic Release System Design

NRC: Variable Buoyancy System Design

Custom Products: Embedded PoE Smart Sensors, Vessel Vibration and Noise Measurement, Quality Monitoring Instrumentation

Notus Electronics: Embedded Subsea Sonar and Systems Integration

Acoustic Zoom: Acoustic Theory Validation

eSonar: AUV situational awareness sonar, net monitoring systems, transducer design and manufacture, 32-channel digitization systems, 32 channel hydrophone arrays, and vessel hull-mounted hydrophones.

Engineering Team:

Gary Dinn, P.Eng. Electrical (electronics & communications), 30 years practice subsea & marine instrumentation

Dr. David Buttle, PhD. Underwater Acoustics, U. Birmingham UK (40 years acoustics systems design & data encoding)

Stephen Motty, P.Eng. Computer/Electrical (embedded systems), 30 years practice remote sensing

Tracie Hughes, P.Eng. Mechanical (systems design), 17 years practice subsea oil & gas

Matthew Dinn, P.Eng. Computer (embedded systems), 13 years practice subsea instrumentation

Primary Contact: Gary J. Dinn, P.Eng., CTO and Corporate Director

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