MOTION CONTROL SOLUTIONS
FOR UNMANNED UNDERSEA MISSIONS
QUIET, RELIABLE, AND EFFICIENT
LARGE UNMANNED UNDERSEA VEHICLES

Moog has over 50 years of motion control system design and manufacturing experience in the undersea domain. US Navy submarine programs have relied on Moog for mission critical actuation hardware from the USS GEORGE WASHINGTON class to the USS VIRGINIA class. For ROV and UUV platforms Moog provides motors, controllers, actuators, servo valves, and sonar equipment and is making investments in future technologies to support these platforms. Moog has facilities in the United States, Canada, United Kingdom, Germany and Australia dedicated to the naval and marine industries. If your application is in a challenging environment where performance really matters, Moog has reliable, low risk solutions to ensure mission success.

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**LINEAR INTEGRATED ACTUATOR**
Pressure compensated actuator for deep seawater submersion
2-6" of travel 40-400 lbs force

**FIN ACTUATOR CONTROL ELECTRONICS**
Up to 4-axis independent control
1 ATM housing designed for deep seawater submersion
Various horsepower and operating power ranges
Various power ranges and communication protocols

**SMALL SUBSEA MOTOR**
Pressure compensated motor for deep water submersion
Electronics provided in a separate 1 ATM housing or integrated with the motor
Various horsepower and operating power ranges

**GEMINI 720k MULTIBEAM SONAR**
Real-time, high frequency imaging sonar
Ideal for small ROVs and AUVs in shallow water operations

**SEAKING SPLIT-HEAD PARAMETRIC SUB BOTTOM PROFILER**
Compact, low power capable of penetrating the seabed
Highlights seismic structural differences and layers

**PA500 DIGITAL PRECISION ALTIMETER**
High performance electronics in a proven compact and robust design
Ideal for underwater positioning measurements

**SEAKING AUV/ROV SIDE SCAN SONAR**
A compact and cost effective high definition side scan sonar

**FIN CONTROL ACTUATORS**
Sinusoidal wound motors for quiet operation
Pressure compensated for deep seawater submersion
Various torque and power ranges
Various communication protocols
EQUIPPING THOSE WHO DEFEND FREEDOM