



SEA TECH 4-H CLUB

MOUNT VERNON, WASHINGTON
APPROX. 2,500 MILES



OMEGA INC.

Sea Tech 4-H Club has been building ROVs for ten years, and has participated in the ROV competition sponsored by the Marine Advanced Technology Education (MATE) Center since 2007. The expertise of the members of Omega Inc., as well as the technical and mechanical resources accumulated from years of experience in underwater technology, has allowed Sea Tech to bring an increasing level of sophistication to the MATE competition every year. The 2011 season brought together a team of four seasoned members who shared not only competition experience, but a passion for creativity and invention.

The team conceived ROV Omega as an adaptable, versatile, and sophisticated machine, capable of performing a variety of difficult tasks. The design is tailored to accomplish several specific missions, which are outlined in a Missions Document published by the MATE Center. Omega Inc. made it their goal to not only perform these mission tasks, but to create innovative designs whose concepts could be applied in the real world. The company has created a machine that exceeds these expectations, and expects to perform exceptionally well on every level at the international competition.



From Left:

Eric Coleman: 11th grade, Analytics Officer, third year MATE competitor

Heather McNeil: 10th grade, CFO, fourth year MATE competitor

Trevor Uptain: Community college, Marketing Director, fifth year MATE competitor

Stanley Janicki: 10th grade, CEO, fourth year MATE competitor



ROV OMEGA

Total Cost: \$8,266.94 company expenditure, \$12,737.58 donated, \$21,004.52 total

Primary Materials: Anodized aluminum, hydrostatic proof polyethylene foam

Approximate Dimensions: 48.5 cm x 66.3 cm x 25.6 cm

Total Weight: 32 kg in air, neutrally buoyant in water

Safety Features: Guards and ducts for thrusters, warning labels near moving parts, handles for safe launch and retrieval, electronics safety protocol, emergency shutoff switch

Special Features: Pneumatically controlled tooling, pneumofathometer for depth measurement, self-contained motor-driven assembly to cap and seal the wellhead, mission sled with collection system for benthic organisms, custom electronic controls