



## SEA-TECH 4-H CLUB



Sea-Tech 4-H club has been building ROVs for eleven years and has participated in the Marine Advanced Technology Education (MATE) Center since 2007. Each year Sea-Tech has used the knowledge, gained over the years, to build more sophisticated and complex machines that are capable of achieving the missions given by MATE.

ROV Omega was built in the year of 2010-2011. The box like shape and detachable mission package, on the bottom of the machine, has allowed easy changes to be made so that it may perform the 2012 missions set by the MATE Center. In the fall of 2011 a team of five highly experienced members came together and started to design a new mission package that would have all the items needed to complete the tasks. Over all this year and has been very successful for this team. We have done a lot to improve our machine and hope to do well at the international competition in Florida! See you there!

**Mount Vernon, Washington**

**Approx. 3,200 miles to Orlando Florida**

**From left in picture above:**

**Sierra McNeil:** 10th grade, Mission Specialist, fifth year MATE Competitor

**Madeline Anderson:** 11th grade, Tether Tender, third year MATE Competitor

**Stanley Janicki:** 11th grade, Mission Commander, fifth year MATE Competitor

**Heather McNeil:** 11th grade, Manipulator Operator, fifth year MATE Competitor

**Michael Janicki:** 9th grade, Pilot, fourth year MATE Competitor



**Total cost:** \$1182.12 company expenditure, \$550.00 donated, **Total cost = \$1182.12**

**Primary Materials:** anodized aluminum, hydrostatic proof polyethylene foam

**Approx. Dimensions:** 48.5 cm x 66.3 x 30 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, water sampler, measure tap/grapple/magnet, five cameras for visual reference