RAT

ROV ADVANCED TECHNOLOGIES INC.

Monterey Peninsula College

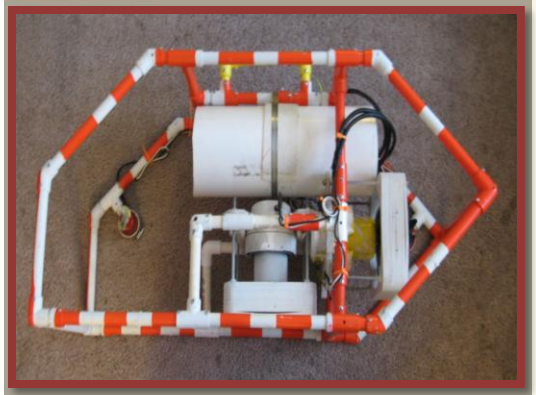
ROV - *Chimera*

ROV Competition History

- 4th Year - Ross
- 3rd Year – Alex, Lendz
- 2nd Year – Chris, Lisa
- 1st Year – Rachel, Thomas, Kage

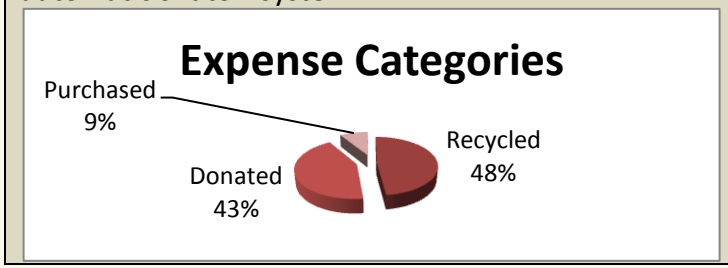
Distance to Competition

- 3,058 Km



ROV SPECS

Almost 50% of this ROV came from recycled parts. The final cost of Chimera was approximately $1,000. $850 of this $1,000 was donated; leaving only $150 in out-of-pocket expenses. *Chimera's* frame was created with ½" PVC (Polyvinyl Chloride) Pipe. The frame is 96cm x 43cm x 46cm and weighs 17.9 kgs in air. Specially cut PVC Boards connected by steel rods created a protective frame that integrated two Rule 3700 bilge pumps. Two Rule 1100 bilge pumps were added for precision turning and underwater visibility was created using four modified Anaconda Cameras. Also incorporated are two payload tools: an oil capping system and sample collecting vacuum. The control system was programmed in RoboRealm and runs using a Linx Motion Servo Board. *Chimera* has an onboard electronics system that is inside a PVC Housing connected to the surface using a custom-built tether. The topside electronics consist of a joystick and control unit. A major innovation this year was the internal cooling system for our underwater electronics and our automatic shutoff system.



Thomas – Design Eng – Studying Marine Science
Ross – Pilot – Studying Marine Science
Lisa – CIO – Studying Mathematics
Chris – CEO – Studying Aeronautical Engineering
Kage – Computer Tech – Studying Computer Programming
Alex – Ops Mgr – Studying Oceanography
Lendz – Tech Spt – Studying Everything
Rachel – CFO - Studying Marine Biology

NOTABLE SAFETY FEATURES – KILL SWITCH, MULTIPLE FUSES, MOTOR PROP COVERS