

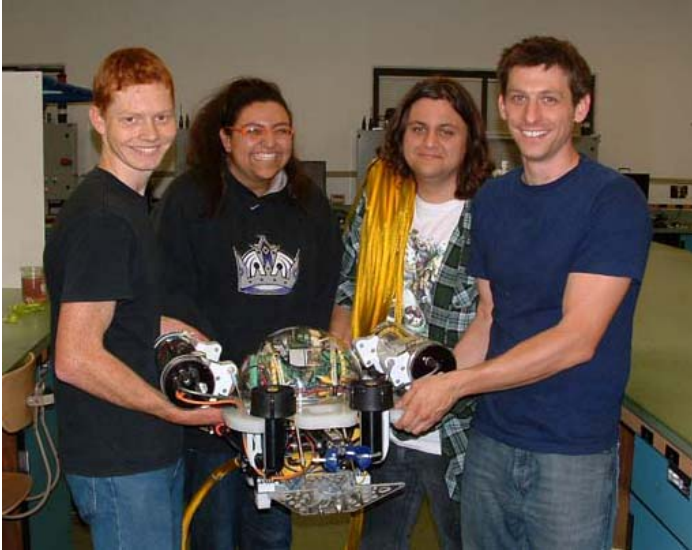
Long Beach City College

Long Beach California

Team: Viking Explorers

Distance Traveled: 3972 km on a bearing of 256

Years Participating: Seventh year



Team Photo: Due to two members being away on a MATE internship, one in the hospital, and work, the next time we will all be together will be at the competition. Left to Right, Baxter, Mariel, Yasin, and Ben

ROV: Viking SHIELD

TOTAL COST: Reused Items: \$4,337.09

Donated Items: \$18,701.65

Purchased Items: \$3,428.28

PRIMARY CONSTRUCTION MATERIAL:

Teflon Sheet, Aluminum and PVC sheet.

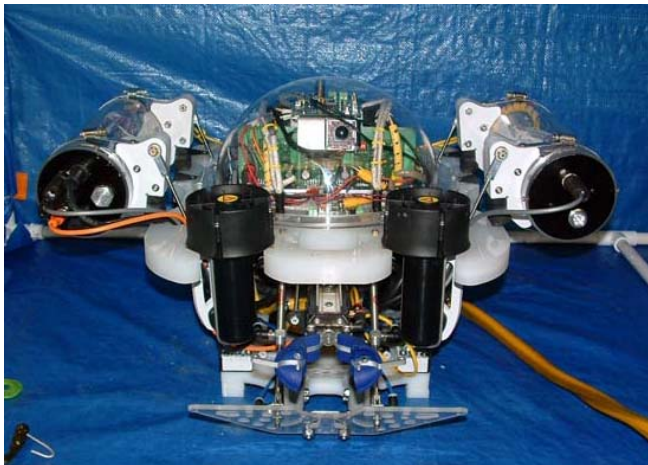
APPROXIMATE DIMENSIONS:

Mode 1: 56 cm wide x 35.6 cm high x 55 cm long.

Mode 2: 48 cm wide x 35.6 cm high x 55 cm long.

Mode 1 is with wings extended for stability and Mode 2 is with wings retracted for maneuverability in the cave.

WEIGHT IN AIR: 22 kgs



Team Members who will be in Hawaii:

Baxter Hutchinson – Team Captain, Finished Electrical Technology May 2010

Mariel Cisneros – 2nd year Engineering

Ben Erwin – 1st year Electrical

Stephen Estrin – Robotics Student

Yasin Khalil – 2nd year Engineering

Alonso Mendosa (on MATE Internship until June 6th) 1st Year Electrical

Ferruh Unlu – Robotics Student

Team Members unable to make the Hawaii Trip

Karen Heggen – in hospital – 1st year Electrical

Stuart Cook – on summer long MATE Internship for the SERPENT program with LSU – 2nd year Electrical

Joseph Hawkins – Engineering – transferred to CSULB

Harleigh Williams – hired full time by Underwater Systems, Inc. – 1st year Electrical

ROV SPECS

SAFETY FEATURES:

1. Integrated propeller shields on the thrusters
2. Color contrasting propellers
3. Light weight for easy carrying and launching

SPECIAL FEATURES:

1. Multifunctional Gripper – houses microphone, temperature sensor and multiple tools for redundant methods of accomplishing tasks
2. Retracting wings to reduce size for navigation in the cave
3. Team designed and built 48V 150 Watt thrusters.
4. Integrated Crustacean sampling device
5. Integrated Bacterial Mat sampling device with built in aiming camera.
6. Easy access to all electronics at top of ROV under acrylic dome. Team built cards are mounted on a motherboard that allows for easy plug in assembly.
7. Status display instantly shows operational status of the ROV.