

"High quality underwater engineering at its finest."

### **Palos Verdes Institute of Technology**

## **Corporate Information:**

Established 2008 Palos Verdes High School Palos Verdes Estates, California Distance to Alpena, Michigan: 3229 kilometers

### **PVIT ROV Ranger Team:**



Photo by Julie Smalling

Back row (L to R): Mark Caropino, John Robertshaw, Shane Sharp, Shaun Sidhu, Nick Vlaco, Grant Vanderdonck. Front row: Lucas Allen, Nora Potenti, Aaron Trell, Kraig Kreiner, Joshua Magid, Chandler Jones, Dennis Smalling

# **Nautilus Specifications:**

**Total Cost**: \$1,502 spent in 2014; Seabotix motors

purchased in 2012 for \$2,700

Primary Materials: Acrylic, Aluminum, and

Polypropylene

**Dimensions**: 60cm length X 56cm width X 35cm

height

Total Mass: 15.06 kg

Safety Features: 25 amp fuses, Kort nozzle propeller

guards, Loctite used on screws and nuts

Special Features: PlayStation 2 controller, Arduino microprocessors, polypropylene frame, high capacity Seabotix thrusters, Pololu motor controller, tight

turning capability, Gopro Hero 3

# **History of MATE ROV competition participation:**

2014 1<sup>st</sup> place Southern California Fly off Ranger Class 2013 2<sup>nd</sup> place Southern California Fly off Ranger Class 2012 2<sup>nd</sup> place International MATE Competition Ranger Class 2012 1<sup>st</sup> place Southern California Fly off Ranger Class 2011 Harry Bohm and Jill Zande Sharkpedo Award Ranger

2011 21<sup>st</sup> place International MATE Competition Ranger Class 2011 1<sup>st</sup> place Southern California Fly off Ranger Class 2010 2<sup>nd</sup> place Southern California Fly off Ranger Class

## 2014 Ranger Team:

**Dennis Smalling**- CEO, Junior, 3<sup>rd</sup> year Chandler Jones- COO, Junior, 2<sup>nd</sup> year

Kraig Kreiner- CFO, Pilot, Sophomore, 2<sup>nd</sup> year

Mark Caropino- CTO, Junior, 3<sup>rd</sup> year

John Robertshaw- Chief Electrical Engineer, Sophomore, 2<sup>nd</sup>

**Nick Vlaco**- Chief Mechanical Engineer, Junior, 2<sup>nd</sup> year Joshua Magid- Electrical Engineer, Freshman, 1<sup>st</sup> year Nora Potenti- Electrical Engineer, Senior, 3<sup>rd</sup> year Lucas Allen- Mechanical Engineer, Sophomore, 2<sup>nd</sup> year **Shaun Sidhu**- Mechanical Engineer, Sophomore, 2<sup>nd</sup> year **Aaron Trell**- Mechanical Engineer, Sophomore, 2<sup>nd</sup> year **Shane Sharp**- Mechanical Engineer, Sophomore, 2<sup>nd</sup> year Grant Vanderdonck- Mechanical Engineer, Sophomore, 1st

