**TEAM INFORMATION:**

**PROVE:**
- David Sampsell - Chief Executive Officer, Grade 11
- Matthew Buonanno - Mentor Programmer, Grade 12
- Benjamin Green - Lead Programmer, Grade 10
- Stephen Gahman - Design Engineer, Grade 11
- Micah Smith - Design Engineer, Grade 12
- Natalie Sampsell - Tool and Graphic Designer, Editor, Grade 9
- Hannah Smith - Graphic Designer, Photographer, Grade 10

**Name of School:** Excelsior Homeschool Cooperative

**Address:** 2455 Chardonnay Drive, Macungie, PA

**Name of Team:** PROVe - Pennsylvania ROV Engineers

**Coaches' Names:** Robin Sampsell, Heidi Smith

**Mentors' Names:** Dave Sampsell, Leonard Smith

**Company History:** Second year of operation

**Members Attending International Competition:** 5 of 7

**Distance to International Competition, Seattle:** 4506 km

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**ROV SPECIFICATIONS:**

**Vehicle Dimensions:** 0.38 m x 0.51 m x 0.13 m

**Vehicle Weight:** 7.5 kg

**Material:** Primarily composite, PVC, and Acrylic

**Total Cost:** $1,100 (including last year parts)

**Safety Features:** A main power switch will shut off the ROV instantaneously in case of an emergency. A 25 amp fuse is also installed in case of a short circuit. Kort nozzles protect people from the propellers.

**Special Features:** A vectored thruster arrangement gives the ROV superior maneuverability in all axes of movement, and proportional control via an Xbox 360 controller and a microcontroller provide seamless pilot integration. Custom built motor controllers allow bidirectional fully proportional control. Transparent pressure housing allows for easy inspection and removal of control electronics.

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**POSEIDON MK II**