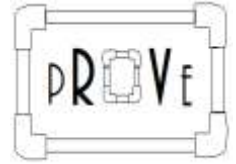




# PENNSYLVANIA ROV ENGINEERS



## POSEIDON MK III SPECIFICATION SHEET

▪ ALLENTOWN, PA ▪

### TEAM INFORMATION:

#### **PROVE:**

David Sampsell-

Chief Executive Officer, Grade 12

Stephen Gahman-

Design Engineer, Grade 12

Benjamin Green-

Lead Programmer, Grade 11

Hannah Smith-

Graphic Designer, Photographer, Grade 11

Natalie Sampsell-

Tool Designer, Graphic Designer, Editor, Grade 10

Timothy Gahman-

Tool Designer, Props Designer, Grade 10



David Sampsell, Benjamin Green, Natalie Sampsell, Hannah Smith, Stephen Gahman, Timothy Gahman (left to right)

### ROV SPECIFICATIONS:

**Vehicle Dimensions:** .41 m x .62 m x .29 m

**Vehicle weight:** 12.25kg

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

**Estimated ROV Cost – Full Value:** \$1,157

**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 fully proportional vectored thruster arrangement gives Poseidon Mk III superior maneuverability in all axes of movement. Controlled via an Xbox 360 controller, custom Python software and a Raspberry Pi provides seamless pilot integration. Custom-built motor controllers allow bidirectional fully proportional control of all thrusters. Custom transparent pressure housings allow for easy inspection and removal of electronics. A rotating tool mount (RTM) allows multiple tools to fit into a compact space while still providing full functionality.

**ROV Name:** Poseidon Mk III

**Name of School:** Excelsior Homeschool Cooperative

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

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

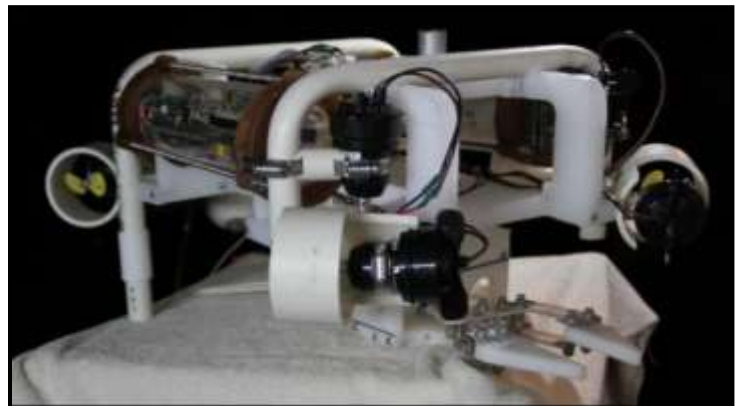
**Coaches:** Robin Sampsell, Christine Gahman, Micah Smith

**Mentors:** Dave Sampsell, Scott Gahman

**Company History:** Third year of operation

**Members Attending Competition:** All

**Distance to International Competition, Alpena:** 1247 km



### POSEIDON MK III