ROV Name: PASCAL Total Cost: \$1931.26 Primary materials: Acrylic, PVC, Polyethylene Dimensions: 56cm (L) x 40cm (W) x 35cm (H) Weight: 6.2 Kg

Mechanical safety features:

- The end caps of the electronics can are isolated by a layer of thick wax
- O-rings are incorporated into the end caps
- All edges are smoothed
- Kort nozzles are attached to the motors
- A firm handle is installed
- A safety rope is tied to the ROV

Electrical safety features:

- Ten fuses are installed in our ROV:
 - 40A fuse connected to the 48V line
 - 5A fuse on each motor
 - 1A fuse on control module
- 8 current sensors are used.
- Temperature sensor is used
- Water sensor is used
- A safety switch is installed



Special Features:

- Dry hull system with vector thrust
- PASCAL has its own driving station
- A graphical user interface is designed
- Pan and tilt system is used for camera
- Very thin tether with little drag

Notions Co.

Company Name: Notions Co. Company Affiliation: Notions Development Academy Home Town: Alexandria, Egypt Distance travelled: 11157.26 km to Seattle, Washington Grade Levels: 10-11 - 12 Previous Participation: 2012 (our 2nd year) Our Staff:

- *Nouran Soliman:* CEO, Co-pilot, Software developer
- Dina Wael: CAD designer, Media director
- *Mariam Abd El-Nasser:* CAD designer, Media director
- *Shrouk Ashraf:* Electrical design engineer, Public relations director
- Sondos El-Sayed: Mechanical implementation engineer, Logistics director
- Ahmed Ehab: CFO, Pilot, Electrical design engineer
- Ahmed Hamdy: Ansys simulator, tether man, Technical writing director
- Hossam Amr: Mechanical implementation engineer
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