MTL HydroTech Underwater Robotics

Our team, based in Mount Laurel NJ, USA
3,869 kilometres to Long Beach, California

Top Row (Left to Right): Ahmed, Vincent
Bottom Row (Left to Right): Andrew, Dan, Ethan

Previous Experience

We are a newly formed company, and are not affiliated with any school. However, all of our members have had a year of prior experience in the MATE Ranger program. Our company was formed because our high school did not offer the program, and we strived to continue.

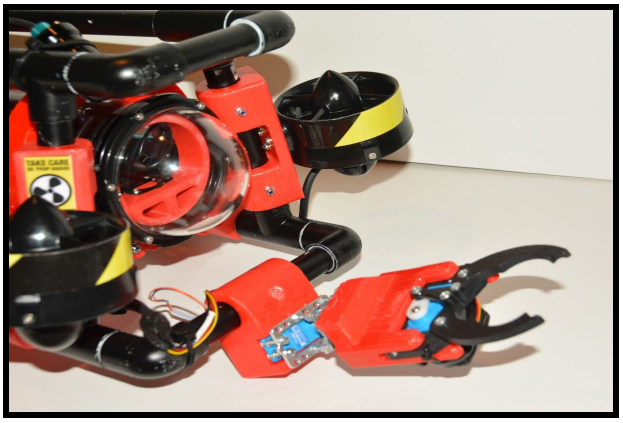
Our members have each worked 10-20 hours a week since December of 2016.

Team Members and Roles*

Ahmed Fouad (CEO) - Electrical Engineer
Andrew McCorkle - Mechanical Engineer, Pilot
Ethan Stillman - Mechanical Engineer
Vincent Cariello - Mechanical Engineer
Daniel Lam (CFO) - Software Engineer, Co-Pilot

*All members are in 9th grade at Lenape High School, which is located in Medford, NJ.

Final ROV Photos



ROV Specifications

Current Cost of ROV - $2,633.29
Estimated Cost of Donated Items - $1,076.58
Dimensions (in cm) - 46 x 40 x 22 (folded motors)
Weight - ~5.8 kg

ROV Features:

- Custom 3D printed holders for the motors, enclosure tube, camera, servos, tether, and perma-proto boards
- Onboard watertight container for electronics, containing power distribution and modifiable wiring (perma-proto) boards
- 15 metres of VideoRay performance tether for handling data
- 6 Brushless BlueRobotics T100 Thrusters
- Single camera viewing system
- Dual servo system that allows a manipulator arm to be rolled
- 15 Watt LED light

Safety Features:

- Main power kill switch
- Fuse within 30cm of power source
- Watt meter to monitor voltage and amperage
- Shrouded thrusters
- Metal plate in the the control box to act as heat sink
- Strain relief into enclosure tube and control box
- Warning labels for moving parts and light
- SOS leak detection system for electronics enclosure
- Vacuum hole to depressurize enclosure