



ETERNAL COMPANY SPEC SHEET

COMPANY INFO

Company Name: Eternal
City: Alexandria, Egypt
Organization: Vortex Academy
Distance traveled to the competition: 10819 km
Participation: since 2018
Range of Grade: From middle1 to senior2

SAFETY FEATURES

- Smooth edges, securing Exposed bolts with cap nuts.
- Fuses are used within less than 30cm from power supply.
- All thrusters are covered with meshes that meet IP20 standards.
- Setting the compressor's pressure relief valve at 10 bars (106 Pa).
- color coded cables are used for power and signal transmission inside the electronics enclosure.
- Warning labels on the ROV to ensure that anyone in contact with it is fully aware of the possible hazards.

SPECIAL FEATURES

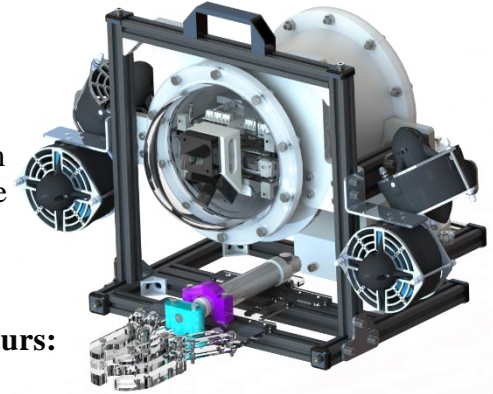
- For thrusters that provide all necessary degrees of freedom.
- Compact Size and light weight.
- Pneumatically actuated gripper.
- Three cameras for the vision system.
- There cameras for vision system.
- Autonomous Docking

MENTORS

- Abdulaziz Yousry
- Asmaa Bahaa
- Karim El-Sayed
- Aya Esam
- Mai Allam
- Mazen Gemeay
- Aly Zaituon

ROV SPECS

ROV Name: Aquaside
Dimensions: 55.034cm x 35.9cm x 55.592cm
Materials: PMMA, PA type PLA, and Polyethylene
Total Cost: 3694 \$
Total Mass in Air: 9.2 kg
Total ROV Design Person-Hours: About 2800 hours



COMPANY MEMBERS

- | | | |
|-----------------------|---------------|----------------------------|
| ▪ Abdallah Elsherbiny | High School | Mechanical Engineer CEO |
| ▪ Abdelrahman Mekky | High School | Mechanical Project Leader |
| ▪ Adam Ahmed | Middle School | Mechanical Engineer |
| ▪ Adam Ibrahim | Middle School | Mechanical Engineer |
| ▪ Adham Al-Hakem | Middle School | Electrical Engineer |
| ▪ Ahmed Wael | Middle School | Software Engineer Leader |
| ▪ Ali Eldin Ahmed | Middle School | Software Engineer |
| ▪ Ali Mohamed | Middle School | Mechanical Engineer CFO |
| ▪ Anas Hany | Middle School | Mechanical Engineer |
| ▪ Aya El-Sayed | High School | Electrical Engineer |
| ▪ Eyad Ahmed | Middle School | Software Engineer |
| ▪ Fares Hossam | Middle School | Software Engineer |
| ▪ Hamza Mohamed | High School | Mechanical Engineer |
| ▪ Hana Mohamed Aly | High School | Electrical Engineer |
| ▪ Hour Ahmed | Middle School | Mechanical Engineer |
| ▪ Isel Karim | Middle School | Mechanical Project Leader |
| ▪ Mohamed Sameh | Middle School | Mechanical Engineer |
| ▪ Omar Karim | Middle School | Software Engineer |
| ▪ Omar Mahmoud | Middle School | Electrical Engineer |
| ▪ Retaj Tamer | High School | Mechanical Leader |
| ▪ Rodayna Mohamed | Middle School | Software Engineer |
| ▪ Saif Tabouna | High School | Electrical Leader |
| ▪ Yassine Mohamed | Middle School | Mechanical Engineer |
| ▪ Youssef Khaled | Middle School | Mechanical Engineer CTO |
| ▪ Ziad Khair | Middle School | Software Project Leader |