

Spec sheet

Company: Matrix

City: Alexandria, Egypt

Year of Participation: 1st Year Participating

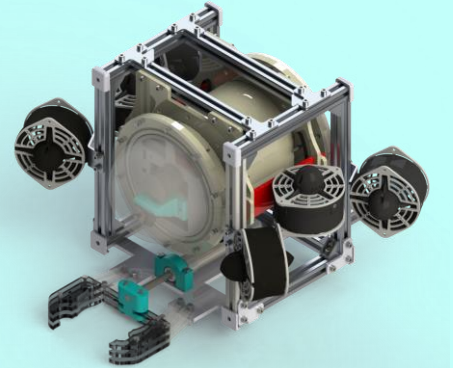
Organization: Vortex Co.

Distance travelled to the competition: 11803 km

Range of grade: From Junior4 to Senior3

Company members

- Omar Elkobrosy| New | Software Leader|Co-pilot
- Youssef Taha | Return|Mechanical engineer|CEO| Pilot
- Rittaj Hemida| Return | Mechanical Engineer|
- Lama Amr| Return | Mechanical Engineer
- Yassine mohamed| New| Mechanical Engineer
- Adam Ahmed | New| Mechanical Engineer
- Mariem Amr | New | Mechanical Engineer
- Hana Mohamed Aly | Return | Electrical Engineer
- Ahmed Rady| New | Software Engineer
- Yara Saad | New | Software Engineer
- Rodina Mohamed | New | Software Engineer
- Haneen Hassan| New | Electrical Engineer
- Aya El-Sayed | Return | Electrical Engineer
- Omar Tabouna | Return | Software Engineer
- Saif Tabouna | Return | Software Engineer
- Adham Mahmoud| Return | Electrical Leader
- Anas Hany| New | Mechanical Engineer
- Asmaa Bahaa| Mentor
- Lina Nassar| Mentor
- Muhammed Salem| Mentor



Special Features

- Six thrusters that provide all necessary degrees of freedom
- Compact Size and light weight
- Pneumatically actuated gripper
- Three cameras for the vision system
- Servo motor for tilting the camera

Safety Features

- No sharp edges.
- Fuses are used for the main ROV
- Pressure relief valve is used.
- Water detection sensor to detect leakage
- All thrusters are shrouded with meshes that meet IP20 standard
- Pressure of the pneumatic system is regulated below 2 bars

ROV Specs

- **Name:** Square
- **Total Mass in Air:** 14.5 kg
- **Overall Dimensions:** fits inside a 53.5 cm diameter circle.
- **Primary Materials:** PMMA, PA type 6, PLA and Polyethylene
- **Total ROV Cost:** \$3097
- **Total ROV Design Person-Hours:** at least 240 hours per person

