

# Vortex Explorers

Vortex Academy



Figure 1. Megatron By Retaj Hemida

## THE MEGATRON

REDEFINING WHAT'S POSSIBLE  
BENEATH THE SURFACE

Total Cost: USD \$6670

Total Mass in Air: 23.6 KG








Overall Dimensions:

X: 749.95 mm Y: 653.33 mm Z: 575.09 mm

Primary Material: Aluminum

Total Hours: 3907.8

### SAFETY FEATURES

-  Fuses & Kill switch
-  Internal Cooling Fan
-  Shrouded Tether with Protective Holder
-  Waterproof Enclosures up to 10m
-  Vehicle Manual Arming Protocol
-  Deburred Edges
-  Thruster Guards

### SPECIAL FEATURES





-  Advanced Control System with Raspberry pi 5 & Pixhawk, providing robust vehicle control and various flight modes
-  VORTEX UI - Unified and Customizable GUI (Multi-Device Support, Modular Design and User-Friendly Interface)
-  High-resolution real-time imaging from 7 IP PoE cameras providing full 360-degree coverage around the ROV
-  Specialized array of precision tools



Figure 2. Vortex Company Photo, By Maryam Mohamed

ALEXANDRIA, EGYPT



YEAR COMPETING: 10TH YEAR

## COMPANY STRUCTURE

### SOFTWARE ENGINEERS

- 25' Mostafa Hala CEO
- 25' Ali Mones Control/GUI Lead
- 25' Ali Ezzeldin ML/CV Lead
- 25' Mazen Sakr FM/TDR Lead
- 25' Asmaa Aboushady\* Media Lead
- 25' Mazen Eldeeb\*
- 25' Esmael Saleh
- 25' Abdelraouf Elmaghraby
- 25' Abdelrhman Essam
- 26' Ahmed Elkhereby\*
- 26' Mohamed Hisham\*
- 26' Ahmed Emad\*
- 26' Seif Taha\*
- 26' Ahmed Hendawy\*
- 26' Mohamed Elsayed\*
- 26' Ammar Elsamman\*
- 27' Youssef Mahmoud\*
- 28' Youssef Taha\*

\* Denotes New Members

### MECHANICAL ENGINEERS

- 25' Ahmed Kamel FM
- 25' Jana Ghassan
- 26' Ammar Yasser
- 26' Ahmed Samir
- 31' Retaj Tamer

### ELECTRICAL ENGINEERS

- 25' Abdelrahman Aqaby FM
- 25' Mariam Hesham
- 25' Habiba Hatem Float pm
- 25' Omar Ahmed
- 25' Rodina Ehab
- 26' Mahmoud Reda
- 25' Mohamed Abdrabo\*
- 25' Ali Mohamed\*
- 25' Abdelrahman Badawy

Distance Travelled: 9,189 Km

### MENTORS

- Muhammed Salem
- Abdelrahman Abouklila
- Asmaa Bhaa
- Maryam Mohammed
- Abdelaziz Yousry

