



**ALEXANDRIA UNIVERSITY**  
ALEXANDRIA, EGYPT



**VORTEX**

IN THRUST WE TRUST  
ALEXANDRIA, EGYPT

SECOND YEAR PARTICIPATING IN THE COMPETITION



DISTANCE AWAY FROM  
LONG BEACH, CA  
IS ABOUT 12,047 KM



## SPECIFICATIONS

### ROV NAME:

V-RAY LIKE THE STINGRAY FISH

### DIMENSIONS:

- .IT FITS INSIDE A 58 CM DIAMETER CIRCILE
- .AVARAGE SPEED: 0.92 M/S
- .ROV WEIGHT IN AIR: 16.85 KG

### FRAMEWORK:

POLYETHYLENE AND ACRYLIC FRAME  
COMPACT DESIGN

### TIME OF WORK AND TRAINING:

EACH MEMBER WORKED FOR AT LEAST **1500 HOURS**  
ON DESIGNING AND MANUFACTURING THE ROV

**90 HOURS** TRAINING TIME

### SPECIAL FEATURES:

- .COMPACT DESIGN LESS THAN 17 KILOGRAMES
- .RATED UP TO 100 M OF DEAPTH
- .DURABLE
- .AUTO-DEPTH
- .WIDE RANGE OF VISSION USING HD CAMERAS
- .PERFORM TASKS USING PENUMATIC MANIPULATORS

### SAFETY FEATURES:

- .NO SHARP EDGES
- .SAFETY STICKERS
- .FUSES CONNECTED TO PREVENT OVER-CURRENT A
- .THRUSTER'S PROPELLER ARE SHROUDED
- .SHEATHED TETHER FOR PROTECTION
- .FULL SAFETY CHECK LIST FOR BEST OPERATION

**ROV MARKET VALUE : \$ 2281.87**

### COMPANY MEMBERS: ELECTRO-MECHANICAL ENGINEERING " 2017 "

- IBRAHIM YOUSRY ( CEO ) (ELECTRICAL DEP. ) (PROGRAMER)
- MAHMOUD ASSEM ( CFO ) (ELECTRICAL DEP. )
- HESHAM SAID ( MEDIA ) ( MECHANICAL DEP. ) (CAD MODELLING ) ( ROV-PILOT )
- MUHAMMAD TAREK ( MARKETING ) ( MECHANICAL DEP. ) ( ROV-PILOT )
- AMR ESSAM ( IT ) (ELECTRICAL DEP. ) (PROGRAMER ) ( CO-PILOT )
- ABDELRAHMAN HUSSEIN ( HEAD OF ENGINEERING ) ( MECHANICAL DEP. ) (CAD MODELLING)
- ABDELRAHMAN EL-MARADNY ( R&D ) ( MECHANICAL DEP. ) (CAD MODELLING)
- ABDELRAHMAN ABU-KLILA ( PR ) ( MECHANICAL DEP. )

MENTOR: **PROF. DR. MOHAMMED ABDELWAHED YOUNES**

