# EXPLORERS, INC.

#### **About Us**

Established in March 2015, Explorers Inc. is a wholly owned subsidiary of Engineering & Technology Post 1882. Explorer Post 1882 is a co-ed STEM focused engineering club for young men and women, headquartered Haymarket Virginia. Explorers Inc. is 1,160 miles from the 2015 international competition in Newfoundland Canada. This is the team's first time competing in the MATE competition.

- Benjamin Clark: Guidance Navigation & Control (GNC), Manipulators, 9th Grade
- Kyle: Propulsion, Manipulators, 8th Grade
- Lauren: Project Management
  Office (PMO), Sales &
  Marketing, 5th Grade
- Daniel: GNC, 6th Grade
- Josh: Chassis, Manipulators,
  5th Grade
- Luke: PMO, Sales & Marketing, 6th Grade
- Matthew: Propulsion, Chassis, 6th Grade
- Ethan: Manipulators, GNC, 6th Grade
- Harrison: GNC, 8th Grade





Team from left to right



Inaugural launch

# Explorer Mark II—2015 MATE Mid-Atlantic

#### **Special Features**

- Octagon Chassis
- Custom 3D printed propellers
- X-Drive, 6 thrusters
- VEX Cortex microcontroller & wireless joystick driver controls
- Compass
- 5 video cameras
- Dimensions: 23"x23"x16"
- Weight: 8lbs

### **Safety Features**

- Power Distribution board
- 25A main fuse and individual 5A/10A fuses thruster
- Custom 3D printed thruster shrouds
- Waterproof wiring
- Tether spool

## Cost (\$1700)

- Game Field Set-up: \$200
- Color Digital Cameras: \$245
- Electronics/Wiring: \$600
- Pool Time: \$500
- Misc. Parts: \$100
- DONATIONS: PVC, B&W underwater cameras, Power Distribution Board

### **Corporate Partners**

- Stellar Solutions, QBE Global
- Systemic Solutions, BluWater Scuba



Explorer Mark II

Propeller CAD model