

First Descent Solutions - First Flight High School - Kill Devil Hills, NC



2018 Team Members (from left to right)

Mac McClary - CEO, **Navigator**, Software/Electrical Engineer - Senior, 3rd year
Ashby King - **Poolside Manager**, Design, Engineering, Construction - Sophomore, 1st year
Bryce Pugh - Engineering, Construction - Senior, 1st year
Isabel Eckard - Media Relation, Marketing - Senior, 1st year
Drew Whitehead - **Pilot**, Engineering, Construction - Freshman, 3rd year
Jacob Thomas - COO, **Data Analyst**, CAD Design - Freshman, 3rd year
Robert Amoruso - Engineering, Construction - Senior, 1st year
Will Roepcke - Machinist, Engineering - Freshman, 3rd year
Noah Corbett - Safety Officer, Construction - Freshman, 1st year
Jack Voight - CFO, **Tether Operations**, Construction - Freshman, 3rd year
Elliott Piland - **Tether Operations**, Tool Specialist, Construction - Freshman, 2nd year

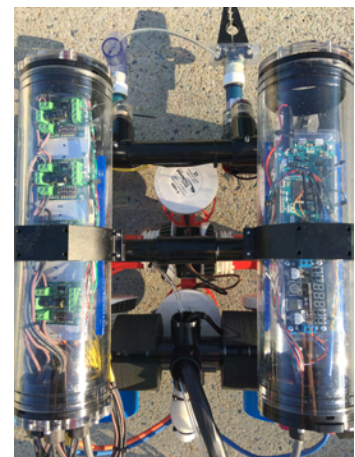


Safety/Key Features

- Completely shrouded thrusters
- All components fit inside the frame structure
- Warning labels & high visibility colors on moving parts
- Internal wiring
- Watertight electronics housings
- 4 wide angle cameras and large display screen
- Lightweight and under 60cm in diameter
- Over 420 man hours to build
- Total cost \$1527, New parts \$978, Re-Used parts \$549

New for 2018!

- All new Arduino control system, utilizing serial control to minimize tether size and weight, maximize maneuverability, and allow for easy integration of sensors
- Custom lift bag inflation and release system
- 3D printed motor shrouds
- Blue Robotics Watertight Electronics Housings
- Custom cut Starboard frame, with all ROV components housed within the frame



2,482 miles from Kill Devil Hills, NC to Federal Way, Washington