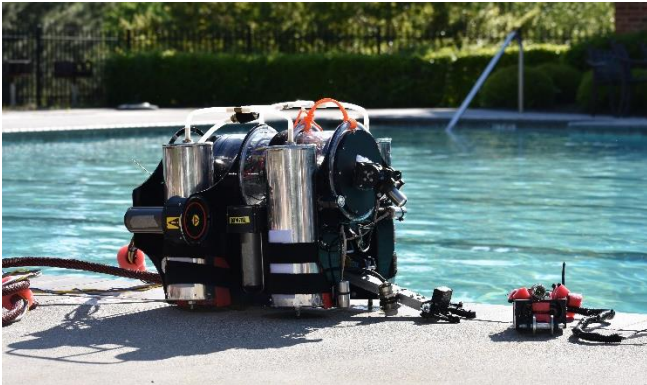




# NORTH PAULDING ROBOTICS

North Paulding High School  
300 N Paulding Drive  
Dallas, GA 30132



**DISTANCE TRAVELED:** Dallas, GA to Kingsport, TN  
505 km to MATE International Competition in Kingsport, TN

**ROV TOTAL COST:** \$5,087.62

**WORKING HOURS:** 576 hours

## ROV FEATURES

- ▶ Dimensions: width 58cm, height 35cm, length 40cm
- ▶ Weight: 15kg
- ▶ Materials: Aluminum metal, 3D printed plastic filament

## SAFETY FEATURES

- ▶ 25 Amp fuse within 30 cm of power on positive line, Main power shut-off switch
- ▶ Cords secured and tucked away into the frame
- ▶ All compounds are waterproofed
- ▶ 3D printed guards on all thrusters
- ▶ Warning labels on all moving parts
- ▶ Emergency shut off relay if water is detected in housing
- ▶ Strain relief at both ends of tether

## SPECIAL FEATURES

- ▶ Custom Aluminum frame
- ▶ 4 Seabotix thrusters
- ▶ Rotating camera
- ▶ Metal Detector sensor
- ▶ Custom built manipulator
- ▶ Onboard electronics
- ▶ Custom built buoyancy tanks

## HISTORY OF COMPANY

- ▶ 1<sup>st</sup> place in the 2019 MATE Gray's Reef Southeast Regional Competition, Savannah, GA
- ▶ 7<sup>th</sup> place in the 2018 MATE International Competition held in Federal Way, WA
- ▶ 1<sup>st</sup> place in the 2018 MATE Gray's Reef Southeast Regional Competition, Savannah, GA
- ▶ 12<sup>th</sup> place in the 2017 MATE International Competition held in Long Beach, CA
- ▶ 1<sup>st</sup> place in the 2017 MATE Gray's Reef Southeast Regional Competition, Savannah, GA
- ▶ 2<sup>nd</sup> place in the 2016 MATE Gray's Reef Southeast Regional Competition, Savannah, GA

## COMPANY MEMBERS

Bryce Rodriguez	CEO & Electrical Engineer, 4th year, Senior
Brighton Allen	Head of Programming Team, 2nd year, Sophomore
Tanner Highfield	Head of Mechanical Team, 3rd year, Junior
Glen Lewis	Head of Electrical Team, 3rd year, Junior
Ben Buzzelli	Electrical Engineer, 3rd year, Junior
Ryan Testino	Mechanical Engineer, 1st year, Sophomore
Zoe Hood	Mechanical Engineer & CFO, 3rd year, Junior
Anthony Robinson	Mechanical Engineer, 2nd year, Sophomore
Jason Perez	Mechanical Engineer, 2nd year, Sophomore
Trey Lowe	Mechanical Engineer, 2nd year, Sophomore
Ben Skowronski	Design Engineer, 2nd year, Sophomore

Mentors: Nicola Lees, Geoff Gardener, Mark Lewis, Justin Loomis



*"The future developers in ROV design"*

# **NORTH PAULDING ROBOTICS**

## MICRO-ROV DOCUMENTATION