

CARROLLTON HIGH SCHOOL

A GEORGIA SCHOOL OF EXCELLENCE



INNOV OCEAN

Innovation in Marine Technology

Carrollton High School
Carrollton Ga

2018 MATE international ROV competition
Mentor: Kristie Bradford-Hunt

Malachi Ivey (18) CEO
Kirby Criswell (18) CFO
Laila Floyd (19) Research team
Grant Gordon (19) Safety
Nate Parcels (20)

Leo Ank (19) COO
Thomas (20) Chief Engineer
Amelie Avin (21) Pilot
Kishan Patel (20) Engineer
Elliot Basil (20) Engineer

Eli Nunez (20) Chief Electrician
Peter Ivester (21) Electrician
Taylor Hunt (20) Pilot
Andrew Bell (21) Engineer
Gabriel Smith (19) Engineer



Company Specs

We are from Carrollton High School located in Carrollton, Georgia, and we have journeyed 338.9 miles to travel to Dauphin Island. Our company has been participating in the MATE ROV competition for over a decade, and we are excited to be returning again this year.

Our company is composed entirely of 9th through 12th graders.

ROV Specs

The ROV is named "ORCA", and it stands for "Oceanic Ranger Computer Applicator". The total cost of ORCA is \$4,525.68. Its diameter is 59 cm, and it weighs 11.9 kg. We have calculated that it took a total of 108 hours to construct ORCA.

Safety Features

Orca features numerous safety features which include: a 25 Amp fuse, wire connections covered in heatshrink and electrical tape, and inward-facing zip ties to prevent any potentially sharp edges.

Special Features

In the line of special features, Orca holds in store a speaker that emits 1200 Hz to activate our acoustic release, and it also features a retractable claw for easier storage. Lastly, it utilizes a wireless router, allowing us to control the ROV anywhere within the router's vicinity.

