DIGITAL CAMERA SYSTEM & GUI

Advanced Digital Camera System allows for high quality video feeds and full software control of vision and image recognition systems.



BUOYANCY ENGINE

A custom float separate from which is capable of autonomously completing two vertical profiles.



BELUGA

Brought to you by Geneseas.



GENESEAS

ST. FRANCIS HIGH SCHOOL SACRAMENTO, CA, USA

Distance traveled: 417 miles

PNEUMATIC GRIPPER

A pneumatically powered, custom-designed gripper, capable of completing a range of mission tasks.



ADJUSTABLE FRAME & BUOYANCY

An adaptable frame for easy configuration which features an adjustable buoyancy system.



SAFETY FEATURES:

SHEATHED TETHER

Beluga's sheathed tether protects the ROV Power, Pneumatics, Communications Lines, and team members operating the ROV.

CUSTOM HANDLES

Beluga features custom 3-D printed Polycarbonate handles to ensure safety during ROV launch and recovery.

EMERGENCY POWER OFF

Ensure Deck Crew safety with easy and efficient shutdown of the ROV.



Total Cost of ROV: \$6,302.10 Size: 648 x 558 x 367 mm Cumulative student build & design hours: 4620hrs Weight: 8.8 Kg

COMPETITION TEAM MEMBERS:

Jaedyn Alford '22 Meredith Garcia '22 Lauren Jones '22 Emmy Asperger '23 Allie Dinh '23 Morgan Jones '23 Norah Zhou '23 Alicia Del Toro '24 Lauren Grindstaff '24 Isa Gutierrez '24 Siena Marois '24 Jianna Reyes '24 Vision Tools Lead CMO; Overall Software Lead

Mechanical Control Software Lead CEO; Vision Lead

CFO; Electrical Lead Electrical

Safety; Mechanical Lead

Tools Software Software

CREW:

Sydney Goodall* '23; Sofia Stuck* '23; Ava Borchers* '24; Audrey Mayo* '24; Emily Murray* '24; Isabella Ramos* '25; Alyssa Renomeron* '25; Gabrielle Rosario* '25; Kinnera Tirumala* '25

*New Members Returning MATE Competition Participants

COACHES:

Kitara Crain; Maurice Velandia; Marcus Grindstaff