BELUGA Spec Sheet

Company Information:

TEAM
Gian Miguel Sero Del Mundo | Chief Executive Officer | Year 2
Yu Zhang | Chief Technical Officer | Year 1
Richard Lauwrence | Chief Financial Officer | Year 2
Hans Ryan Tanubrata | Electronic Engineer | Year 2
Hongseo Yoon | Electronic Engineer | Year 2
Tun Jian Tan | Electronic Engineer | Year 1
Akshay Kapur | Electronic Engineer | Year 2
Mohammad Hanif Dean Nadhir | Electronic Engineer | Year 2
Gaurav Vijai Jeandani | Mechanical Engineer | Year 2
Kin Ip Mong | Mechanical Engineer | Year 1
Aadhithya Vignesh Jayakumar | Mechanical Engineer | Year 1
Randitya Setyawan Mohamad | Software Engineer | Year 2
Donnis Chen | Software Engineer | Year 2
Heng Su | Software Engineer | Year 2
Daniel Cheung | Software Engineer | Year 1

Distance to Long Beach
11,664 km

ROV Specifications:

STABILITY
Flight Time: > 75 hours
Design and Build Time: > 2000 hours

DIMENSIONS
Length, Width, Height:
530 mm x 515 mm x 350 mm

TOP SPEED 0.8 m/s

ROV MASS 11 kg

TETHER MASS 3.5kg

BUOYANCY
Polystyrene foam reinforced with carbon-fiber composite

FRAMEWORK
Dual-layer design
Top - modular electronic housing and buoyancy system
Bottom - sectional manipulator layout
Material - High Density Polyethylene (HDPE)

ELECTRONIC SYSTEM
Modular electronics setup
CAN Bus integration
Standardized electronics module

SENSOR
Inertial Measurement Unit
Pressure sensor

SOFTWARE SYSTEM
ROS integration
User friendly web UI
Kalman IMU Filter

SAFETY FEATURES
Shrouded thrusters
Strain relief on tether
Warning labels on moving parts

SPECIAL FEATURES
6 DoF movements
Raspi-CAN back-up system
Auto-depth/heading stabilization

TOTAL COST
USD 3921.13

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