



ABOUT THE TEAM



Left to right: Daffa Hanif, David, Edward Pandji, Nicholas Patrick, Samuel Alexander, Ghevaldo Geraldio

(Credit: Jallson Suryo)

Samuel A. (10th grade, Cita Hati High School, 1st year of MATE competition): Chief Executive Officer, pilot

Daffa H. (8th grade, SMPN 1 Surabaya, 1st year of MATE competition): Chief Operating Officer

David (7th grade, IPH High School, 1st year of MATE competition): Chief Financial Officer

Edward P. (7th grade, IPH High School, 1st year of MATE competition): Mechanical Engineer

Ghevaldo G. (10th grade, Cita Hati High School, 1st year of MATE competition): Software Engineer

N. Patrick (7th grade, Cita Hati High School, 1st year of MATE competition): Software Engineer

Surabaya, East Java, Indonesia to NASA
Neutral Buoyancy Labs Houston, TX, USA:
16,168km/10,046.33mi

ROV SPECIFICATIONS

Cost: \$2,357

Dimension/Weight: 53cm tall by 30cm long by 29cm wide; 6.8 kg

Special features:

- Custom design PCB
- Brushless motor thrusters with custom jet-drive nozzle for water flow manipulation
- Holding depth position with PID algorithm using 9 DOF IMU sensor
- 2 DOF main gripper
- Graphical User Interface for data visualization and controls
- Dual hook manipulator
- Compact, lightweight, and durable design

Safety features:

- Waterproof electronics tube
- 25 Amp fuse on the positive side of the main power source
- No sharp edges
- Emergency Cut Off Switch
- Ampere and Volt meter display



Isurus 3D design
(Credit: R. Daffa)