

# TECHNICAL SPECIFICATIONS

# EDUCAT ASV

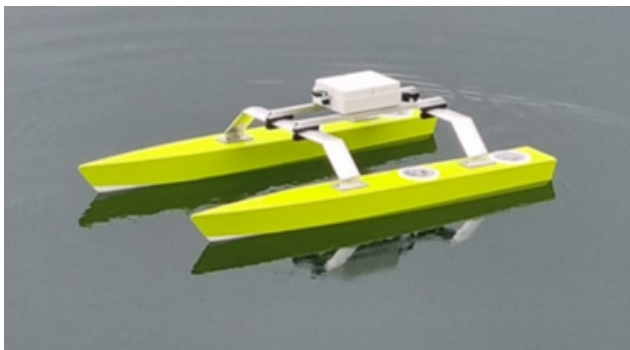


The EduCat ASV (Autonomous Surface Vehicle) has been designed and built at the AMC. It uses commercial off the shelf components to deliver a 'full-capability' in a 'micro-sized' package.

## Hire EduCat ASV

A highly manoeuvrable vessel, ideally suited for small and very shallow water data collection projects using a variety of in and below-water sensors available through AMC's Autonomous Maritime Systems Laboratory.

The exceptionally small footprint, simple logistics and light weight of the EduCat mean that it can be deployed easily by a single person from support craft or directly from the shore.



Contact:  
Chris White  
christopher.white@amc.edu.au  
+61 (0) 402 064691

### Physical Dimensions

- Length overall: 1.8 m
- Beam: 1 m
- Bridge deck clearance: 0.25M (standard configuration - no sensors)
- Displacement: 30 kg (standard configuration - no sensors)
- Draft: 0.125 m (in Standard configuration)
- Payload: 7.5 kg

### Propulsion System

- Dual, counter rotating, Blue Robotics T200 thrusters
- 1.3 kW LiFePO4 battery system, 6cell, 19.2v, 72Ahr

### Control System

- CUBE Orange autopilot
- Triple redundant IMU's
- Internal Barometer
- Dual redundant power supplies
- Dual CAN peripheral interface
- 5 General Purpose serial interface ports
- Here 3 GNSS receiver
- RTK support (centimetre level accuracy, with base station)
- Integrated Compass, Accelerometer and Gyroscope.

### Radio Link

- RF Design 900 MHz Modem, (AS/NZS 4268:2012 compliant)
- Frequency hopping spread spectrum (FHSS)
- AES Hardware accelerated encryption.
- Range 2.5 km+ on standard antennas\* (radio link not required during autonomous operation)

### Sensors

- AIS Receiver, provides target display on ground control station
- Light Ware scanning LiDAR, 100 m range for local collision avoidance

### Sensor Payload Integration

- Almost anything 7.5 kg (in air) or less, Windows and Linux companion computer options available

\*Range is dependent on antenna configuration, height of base station etc. 10Km+ is achievable