

Long duration timelapse | Reliable Ethernet mux | API for automation

Designed for cabled ocean observatories, long-term scientific studies, port security, and offshore structure monitoring. Collect both high-resolution digital stills and video over extremely long durations and store them with up to 1TB of solid-state memory. This flexible system can stream live video, comms and data over Ethernet or run time-lapse automations and scripting.



All-One-System

Includes Rayfin Mk2 Benthic camera capable of capturing both high-resolution digital stills and 4k/HD video. Equipped with lights and lasers, the system is corrosion proof with full Titanium and Sapphire materials and is certified to 6000m depth.



Time Lapse & Automation

Save time with built-in automation settings. These settings - or scripts - allow you to capture time lapse videos and digital stills without constant monitoring. Use the pre-loaded workflows or build your own with our easy-to-use software.



End-to-End Support

We're invested in your success. Receive complimentary remote onboarding training. Plus, access ongoing technical support.



Live Video & Real-Time Control

Monitor your target anytime with Ethernet powered live video. And with real-time camera control, like pan and tilt, you can make on the spot changes so you can collect better data. The camera is also able to store video and stills directly to a shoreside NAS.



Mux & Data-Logging

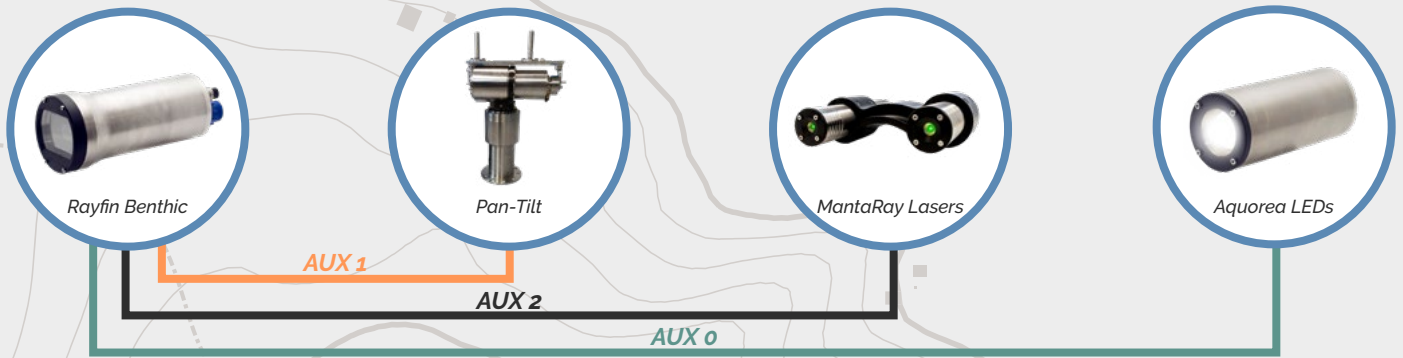
Your camera can simplify integration and save time. It can double as a mux to control up to four devices such as LEDs, lasers and pan-tilts. And, as a data logger, the system has built-in tilt and roll sensors, and can store NMEA sensor data.



Field-Proven

Our systems are proven with customers like Ocean Networks Canada ([ex 1](#); [ex 2](#)) the Ocean [Observatories Initiative](#), and the University of Washington.

Observatory System Configuration



Customizable to meet your needs, you can enhance the capabilities of your system with options like a tripod, frame, or auxiliary expansion kit.

Specifications

All Equipment	
Depth Rating	6000m
Materials	Sapphire, Grade 5 Titanium, Delrin
Temperature Rating	-10°C to +30°C (in Water)
Voltage	18-32 Vdc
Power - Camera	7-13 Watts
Power - LEDs	48 Watts each
Power - Lasers	3 Watt (MantaRay or Skate laser)
Control	Ethernet
Protection	Short circuit, under/over voltage, ESD, over-temperature

Aquorea LED - White Beam	
Lamp Output	Up to 15000 Lumens
Colour	5000K
Beam Angle	80° (circular)
Strobe Output	32000+ Lumens

Rayfin Camera	
Sensor	12.3MP CMOS 12-bit
Max. Exposure Setting	Shutter Speed 1/65000, ISO 3200
Lens	4.52mm f/2.0
LiquidOptics	81° diagonal field of view Less than 3.4% distortion
Zoom	12.3MP sensor zoom (5x optical equivalent)
Focus Range	15cm to infinity
Live Video	Ethernet - RTSP H.263 - 1080p, 720p
Still Rate	3Hz (JPEG) / 0.5Hz (RAW)
Recording	1080 HD and 4K UHD - H.264, H.265, MP4
Recording Capacity	40hr (HD) / 10.5hr (4K) - 512GB <i>Optional 1TB</i>
Media Transfer	Live SAMBA and NAS
Clock Sources	Internal and NTP Server
Data Logging	NMEA 0183/2000 format @ 1Hz

	MantaRay Parallel Lasers	Skate Line Laser	Skate Grid Laser
Pattern Type	Parallel dots	53.6° - line	17.1° - 10 x 10 dot grid
Uniformity	10cm ± 10mm @ 5m distance	± 20% (related to average power, within 80% of the line)	Dot spacing 24mm @ 1m distance
Output Power	≤ 5.00 mW	100 (mW-max.)	70 (mW-max.)
Wavelength	520nm ± 10nm (green)		
Class	3R (avoid direct eye exposure)		

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SubC is here to help you plan your next project.

Our equipment is available for direct purchase or rental. To speak with an expert or schedule a demo please [contact us](#).

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