



Company Portfolio

- 01** • Overview
 - 02** • About SubC Imaging
 - 03** • Why Choose SubC?
 - 04** • Case Studies
- 06** • Cameras
 - 07** • Rayfin Benthic
 - 09** • Rayfin Coastal
 - 11** • 1Cam Mk6
- 13** • Lights & Lasers
 - 14** • Aquorea LED White
 - 16** • Aquorea LED Colour
 - 18** • Skate Mk2 Laser
 - 20** • MantaRay Parallel Lasers
- 22** • Software Solutions
 - 23** • DVR+O
 - 25** • Streaming
 - 26** • Remote Operations
- 30** • Systems
 - 31** • Tow Camera System
 - 33** • Subsea 4K & HD Video Survey
 - 35** • Subsea Digital Stills System
 - 37** • Autonomous Camera
 - 39** • Observatory
- 41** • Post-purchase Services
- 42** • Contact Us

180+ clients worldwide

SubC Imaging's mission is to continuously create the most technologically advanced and intelligent subsea imaging equipment and software for marine research, offshore oil and gas, aquaculture, fisheries, and other industries.

With a global client list spanning over 30 countries, SubC's underwater equipment, such as complete camera systems, cameras, LEDs, and lasers have been in use for a number of years. Several pieces of equipment deployed for applications like observatories are continuously operating since deployed and are providing consistently reliable performance.



Values

Our technology is driven by conversations and projects with scientists and technical experts. We value innovation, continuous improvement, and collaboration.



Driven by a philosophy of continual improvement and innovation, SubC is built on the promise of delivering high client satisfaction.



Focus

As specialists in the ocean science market, serving the research community is our number one job. With over a decade of experience, our attention has been focused on supporting and growing the industry since day one.



Capability

Built using a modular design, our systems are like Swiss Army knives. They're able to deliver multiple features in one complete package. Meaning that you won't require multiple instruments, as everything you need is fully incorporated into a single system.



Integration

Our camera systems are backed by a powerful API that allows them to be easily combined with other devices and software. This makes it easier for our clients to tailor their systems for special operations like time-lapse recordings and automated data collection.



Optics

Trusted by researchers around the world, our SubC camera systems are well-known for their industry-leading optics. Quality research relies on capturing the best images possible and our cameras go above and beyond, especially in deepwater and low-light environments.



Reliability

Our camera systems are purposely built with the harsh ocean environment in mind. This focus on rugged design ensures there will be no need for maintenance for a number of years.



Convenience

The modular design of our camera systems allows them to be tailored to meet our client's exact needs. You'll find that gathering data is easier when you have the right tools for the job.



SubC Autonomous Camera Solution Used in DFO Labrador Sea Frontier Area Study

SubC's autonomous camera system was used in DFO's biophysical and ecological characterization of the Labrador Sea Frontier Area (LSFA). With SubC equipment aiding sound science, researchers were able to start to fill some important LSFA data gaps on the characterization of mesopelagic fish, demersal fish and benthic community ecosystems.



Proving the Tow Camera System: Field Tested & Ocean Ready

When we identified a potential need in the market for a seafloor mapping solution, we knew we needed to learn more and validate our thinking. We brought in DFO researchers for their feedback and to understand the challenges they face when mapping and imaging the seafloor. The result -- our new Tow Camera System.



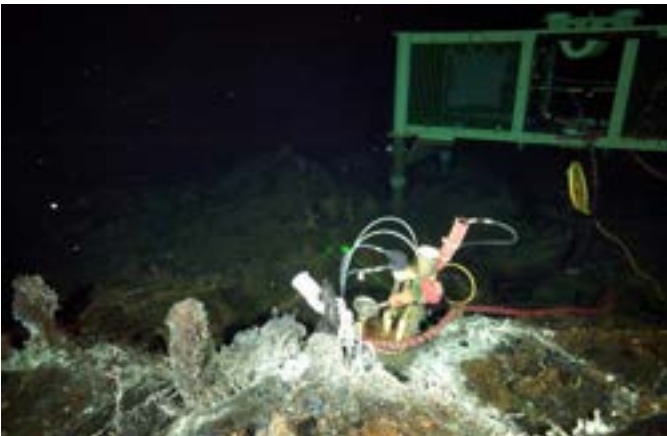
Greenland Shark Filmed Using Programmable Subsea Camera

Researchers Brynn Devine of Memorial University and Laura Wheeland of Fisheries and Oceans Canada were able to collect additional data such as shark lengths and swimming speeds from the video footage using integrated reference lasers on the 4K subsea camera for scale. Over 258 hours of footage was gathered in Nunavut, Canada.



Subsea camera enables remote real-time and long-term monitoring of seafloor as part of ocean observatory initiative

Ocean Networks Canada and Memorial University's Fisheries and Marine Institute partnered to install an ocean observatory in Holyrood, NL. On this observatory, SubC's Rayfin camera is equipped to document marine fauna by collecting continuous, high-definition video footage from the seafloor.



SubC Stories: Hydrothermal Vent Digital Stills Time-Lapse

Since 2014, the Ocean Observatories Initiative and the University of Washington have been using SubC cameras, LEDs, and lasers on the Regional Cabled Array. The University of Washington's Applied Physics Laboratory uses SubC's Rayfin camera to capture digital stills of the actively venting chimney "Tiny Towers" every 30 minutes.



SubC Stories: Whale Bone Study Continues in Barkley Canyon with Subsea Camera Observatory

In May 2014, three humpback whale rib sections were placed at a depth of 890m inside the Barkley Canyon -- a site at Ocean Networks Canada's NEPTUNE ocean observatory. Every two hours, the SubC cameras and LEDs pan to the substrates and capture five-minute videos.

Rayfin Benthic

- Continuous high-resolution photos up to 4Hz with strobe sync
- Records in 4K & HD
- Live video over Ethernet
- Autonomous scripting with open-source SubC API



Rayfin Coastal

- Enables power, video, control, and data over a single twisted-pair in a cable
- Records in HD & 4K
- Continuous high-resolution photos up to 4Hz with strobe sync



1Cam Mk6

- 6000m depth rating
- Video transmission options
- 20x optical zoom lens



Digital stills | Records in 4K & HD | Live stream in 4K & HD video

The **Rayfin line** of subsea cameras is being used in various marine research applications around the world. Available with options for live 4K, HD, and IP video formats, the Rayfin Benthic is fully compatible with ROV, AUV, tow/drop, autonomous, and observatory systems.

The camera comes equipped with **Rayfin Control Software** and its modern interface, with real-time control and media download, makes it intuitive to use. The Rayfin comes standard with free software updates to keep your camera cutting edge.



Built-in Storage

Record and store hours of video (4K=10+, HD=40+) and 1000's of digital stills. As a data-logger, the Rayfin Benthic has built-in depth, tilt, and roll sensors. Plus, store NMEA data from GPS, altitude and other sensors.



Real Time and Intuitive

Conveniently view and download your footage in real time while effortlessly controlling your camera, lights and lasers from a topside PC.



Easy Integration

Located on the back of the camera, auxiliary ports allow you to easily plug in lights, lasers, and other sensors, to enhance the quality of your footage.



High-Quality Optics

Capture the sharpest images in the harshest environments thanks to the scratch-resistant sapphire lens paired with water-corrected LiquidOptics™.



Compatible with all Subsea Systems

Get the most out of your asset. From marine science observatories to offshore energy ROVs, the Rayfin's versatility provides high-quality footage no matter the application.



Time-lapse and Automation

Save time during longer-term projects, and automate workflows to reduce repetition by using autonomous scripting to capture time lapse videos and digital stills.

Specifications		Rayfin HDE	Rayfin HDC	Rayfin UHDF
Sensor & Lens	Sensor	Exmor RS™ CMOS 12-bit		
	Image Size	12.3MP - 4056 x 3040		
	Max. Exposure Setting	Shutter Speed 1/65000, ISO 3200		
	Lens	4.52mm f/2.0		
	Zoom	12.3MP sensor zoom (5x optical equivalent)		
	Focus Range	15cm to infinity		
Internal Recording System	Image Format	JPEG and RAW		
	Still Rate	3Hz (JPEG) / 0.5Hz (RAW)		
	Recording Resolution	HD and 4K UHD		
	Recording Capacity	40hr (HD) / 10.5hr (4K) - 512GB <i>*Optional 1TB</i>		
	Recording Format	H.265 and H.264 - MP4		
	Media Transfer	Real-time over Ethernet		
	Clock Sources	Internal and NTP Server		
	Data Logging	NMEA 0183/2000 format @ 1Hz		
	Integrated Sensors	Tilt and Roll <i>*Optional Depth</i>	Tilt and Roll	
Live Video	Live Video Standards	IP Ethernet <i>*Optional Composite</i>	HD over Coax IP Ethernet	4K over Fiber IP Ethernet
	Live Video Resolution	1080/30p/25p (480/30p/25p)	1080/30p/25p	1080/30p/25p, 4K/30p/25p
	Live Video Latency	225ms ± 50ms	85ms ± 25ms	
LiquidOptics	Diagonal FOV	81° min.		
	Horizontal FOV	71° min.		
	Vertical FOV	57° min.		
	Distortion	Less than 3.4%		
Electrical	Voltage	16.5 - 32.5 Vdc		
	Power (W)	7.5 (idle), 8 (recording), 13.5 (peak)		
	Control	Ethernet, Serial RS-485		
	Protection	Short circuit, under/over voltage, ESD, over-temperature		
Mechanical	Materials	Sapphire, Grade 5 Titanium		
	Weight	1.6kg in water, 3.2kg in air		
	In-water Operating Temperature	-20°C to +30°C		
	Depth Rating	6000m		
	Dimensions	Length: 242mm, Front Ø: 101mm, Back Ø: 89mm		

Specifications subject to change without notice. © 2010 SubC Control Ltd. All rights reserved. Rev. July 2021

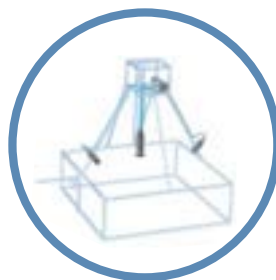
Applications



Subsea Digital Stills



Subsea 4K & HD Video Survey



Autonomous Camera



Observatory



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](#).

Live video and control over low-cost twisted-pair cable | HD/4K video and digital stills

Recording and viewing your underwater survey in real-time is made easy with the **Rayfin Mk2 Coastal** camera. Reduce your costs by enabling power, video, control and data over a single twisted-pair in a cable. Or upgrade your ROV to monitor video and data topside with user-friendly live control.

The camera comes equipped with **Rayfin Control Software**. Its modern interface makes it intuitive to use and comes standard with free software updates to keep your camera cutting-edge.



Built-in Storage

Record and store hours of video (4K=10+, HD=40+) and 1000's of digital stills. As a data-logger, the Rayfin Coastal has built-in depth, tilt, and roll sensors. Plus, store NMEA data from GPS, altitude and other sensors.



Real Time and Intuitive

Conveniently view and download your footage in real time while effortlessly controlling your camera, lights and lasers from a topside PC.



Easy Integration

Auxiliary ports on the back of the camera allow you to easily connect lights, lasers, and other sensors, saving you time and enhancing the quality of your footage.



Versatile

The Rayfin Coastal can conveniently work with your existing equipment and systems. Or, choose to eliminate your batteries and upgrade to the unique capabilities of SubC's most versatile camera.



High-Quality Optics

Capture the sharpest images in the harshest environments thanks to the scratch-resistant sapphire lens paired with water-corrected LiquidOptics™.



End-to-end Support

Invested in the success of your system and project, we offer comprehensive remote training and ongoing support.

Rayfin Mk2 Coastal Models

Rayfin BPC

Boost-Power Comms and Ethernet over two wires with signals carried over 410m of cable. Power your camera, two LEDs, lasers, depth, and other sensors while enabling live HD video and data to the surface. Used for tow and drop camera systems to dramatically reduce the cost of cabling.

Rayfin ETP

Ethernet over twisted pair technology sends signals carried over 470m of tether or cable and uses an existing underwater powersource. This model can upgrade ROVs to enable live water-corrected HD IP video and data over a single twisted pair within the tether.

Specifications		Rayfin BPC	Rayfin ETP
Sensor & Lens	Sensor	Exmor RS™ CMOS 12-bit	
	Image Size	12.3MP - 4056 x 3040	
	Max. Exposure Setting	Shutter Speed 1/65000, ISO 3200	
	Lens	4.52mm f/2.0	
	Zoom	12.3MP sensor zoom (5x optical equivalent)	
	Focus Range	15cm to infinity	
Internal Recording System	Image Format	JPEG and RAW	
	Still Rate	3Hz (JPEG) / 0.5Hz (RAW)	
	Recording Resolution	HD and 4K UHD	
	Recording Capacity	40hr (HD) / 10.5hr (4K) - 512GB	
	Recording Format	H.265 and H.264 - MP4	
Live Video	Live Video	RTSP H.264	
	Live Video Resolution	1080/30p/25p or 720/30p/25p	
	Latency	225ms ± 50ms	
LiquidOptics	Diagonal FOV	81° min.	
	Horizontal FOV	71° min.	
	Vertical FOV	57° min.	
	Distortion	Less than 3.4%	
Electrical	Voltage	40-78 Vdc	18-32 Vdc
	Power (W)	11 (idle), 12.4 (recording), 18.4 (peak)	7 (idle), 8 (recording), 13.5 (peak)
	Control	SubC Boost Power Comms	Ethernet over Twisted Pair
	Protection	Short circuit under/over voltage, ESD, over-temperature	
	Bitrate	(<200m - 8MB/sec.), (325m - 6MB/sec.), (500m - 1.5MB/sec.)	
	Built-in Sensors	Depth, water temperature, tilt and roll	Tilt and roll
Mechanical	Materials	Sapphire, Anodized Aluminum	
	Dimensions	<i>Length:</i> 241.56mm, <i>Front Ø:</i> 101mm, <i>Back Ø:</i> 89mm	
	Weight	0.8kg in water, 2.4kg in air	0.75kg in water, 2.2kg in air
	In-water Operating Temperature	-20°C to +30°C	
	Depth Rating	500m	

Specifications subject to change without notice. © 2010 SubC Control Ltd. All rights reserved. Rev. July 2022



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](#).

4K, HD video and digital stills | 20x optical zoom | LiquidOptics

The 1Cam Mk6 is built upon SubC's tried-and-true 1Cam product line. The sixth generation of this smart camera is designed to exceed the highest requirements of underwater systems for the oil and gas, marine research, and cinematic industries.

We offer various options to fit your research and system requirements such as live HD over coax, 4K over fiber optics, and a wide range of fiber optical wavelength and bulkheads.



Image credit: NOAA Cordell Bank



Optical Zoom

Capture the sharpest images with this 4k and HD colour 20x zoom camera.



Built-in Storage

Record and internally store hours of 4K and HD video (4K=11hr, HD=40+hr) and 1000's of digital stills.



Live HD and 4K Video

View your HD and 4K video live over fibre optics and conveniently transfer the footage and stills via USB topside.

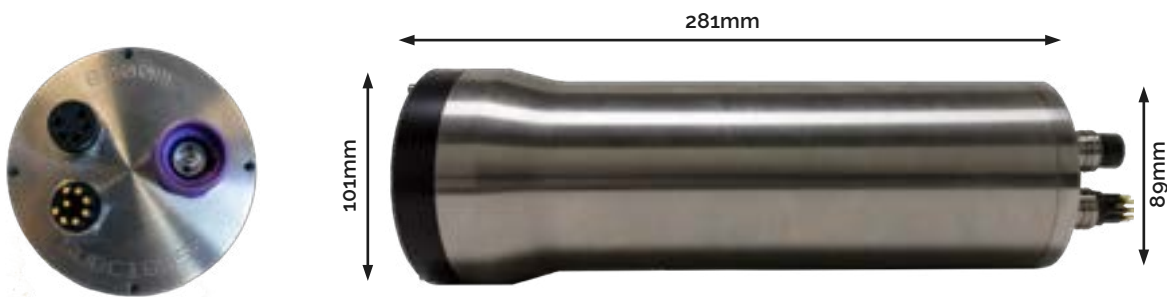


Rugged

Stands up to even the harshest ocean environments thanks to the combination of the durable titanium and scratch-resistant sapphire lens.

Specifications		1Cam SD	1Cam HDC	1Cam UHD
Sensor & Lens	Sensor	Back-illuminated Exmor R™ CMOS		
	Image Size	16.6MP - 5440 x 3056		
	Lens Aperture	F2.0 - F3.8		
	Lens Focal Length	26.8 - 536 @ Aspect Ratio 16:9		
	Lens Type	Zeiss T* Zoom 20x optical		
	Focus Range	0.1m to infinity (Auto and Manual)		
	Sensitivity	1.2 Lux (HD Low Lux)		
Internal Recording System	Image Format	JPEG		
	Still Rate	0.33Hz (1 still every 3 seconds)		
	Recording Resolution	HD and 4K UHD		
	Recording Capacity	40+hr (HD) / 11hr (4K) - 512GB		
	Recording Format	ACVHD (HD 28Mbps) and XAVCS (4K 100Mbps)		
	Media Transfer	USB		
Live Video	Live Video Standards	SD Composite	HD over Coax	HD and 4K over Fiber Optics
	Live Video Resolution	480/25/29.97p	1080/50/59.94p	4K/25/29.97p 1080/50/59.94p
	Optical Budget			20dB or 23dB
LiquidOptics	Diagonal FOV	78° min.		
	Horizontal FOV	72° min.		
	Vertical FOV	48° min.		
	Distortion	4.0% max.		
Electrical	Voltage	17.5 - 32 Vdc		
	Power (W)	4 (idle), 8 (recording), 10 (peak)		
	Control	Serial (RS-232 and RS-485)		
	Protection	Short circuit, under/over voltage, ESD, over-temperature		
Mechanical	Materials	Sapphire, Grade 5 Titanium		
	Weight	2.2kg in water, 3.5kg in air		
	In-water Operating Temperature	-10°C to +30°C		
	Depth Rating	6000m		
	Dimensions	<i>Length: 281mm, Front Ø: 101mm, Back Ø: 89mm</i>		

Specifications subject to change without notice. © 2010 SubC Control Ltd. All rights reserved. Rev. July 2021



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](#).

Aquorea LED White

- Titanium construction
- 180 lumens per watt
- 80° beam angle



Aquorea LED Colour

- Titanium construction
- 180 lumens per watt
- 80° beam angle



Skate Mk2 Laser

- Titanium and sapphire construction
- 6000m depth rating
- 520nm, 100mW, Class 3B laser



MantaRay Parallel Laser

- Titanium and sapphire construction
- 6000m depth rating
- 520nm ± 10nm, Class 3R Laser Product



Hybrid strobe and lamp | Plug-and-play with subsea cameras

A high-efficiency, TTL synchronized **subsea LED** that operates as both a lamp and a strobe. It can be integrated into subsea ROV, observatory, drop, tow, and battery-deployed camera systems.

The Aquorea can simultaneously operate as a lamp and strobe. When taking a photo, the LED's activation time is tightly synchronized with the camera sensor exposure time to ensure the video stream is uninterrupted while collecting photos. SubC LEDs and lasers are plug-and-play when coupled with the **Rayfin camera**.



Specifications		Aquorea LED White
Light Specs	Lamp Output	Up to 15000 Lumens
	Colour	5000K
	Beam Angle	80° (circular)
	Strobe Output	32000+ Lumens
	Reaction Speed	Approx. 190 Microseconds
Electrical	Efficiency	180 Lumen/Watt @ 15°C water
	Protection	Short Circuit, UV-OV-RV, ESD, OT
	Thermal Protection	Auto Dim/Shutoff
	Control	Serial RS-485
	Strobe	TTL 5V (active high)
	Power	18-32 Vdc / 48-120 Watts
Mechanical	Min./Max. Temperature	-10°C - +20°C in water
	Materials	Sapphire, Grade 5 Titanium
	Weight	0.9kg in water, 1.5kg in air
	Depth Rating	6000m

Specifications subject to change without notice. © 2010 SubC Control Ltd. All rights reserved. Rev. July 2021



Titanium construction

180lm/W

180 lumens per watt

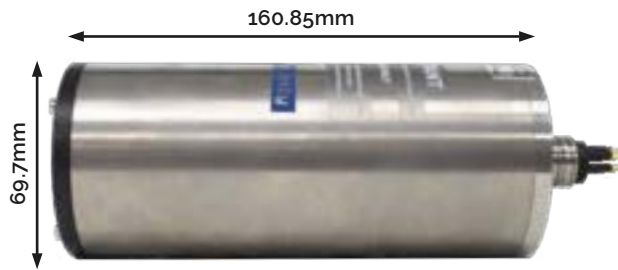
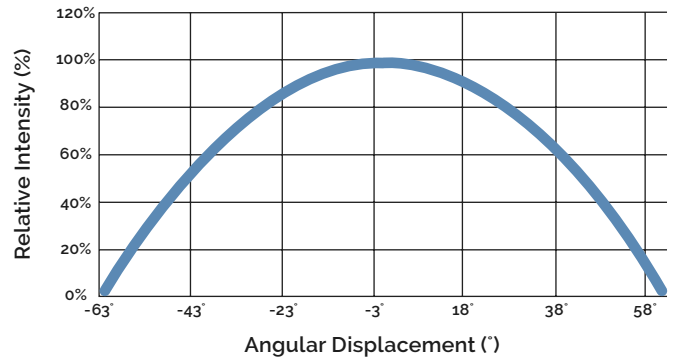


80° Beam Angle

Colour Options

The Aquorea LED is available for various specific deep-sea purposes like far-red (734 nm) for natural species behavior studies, deep-blue (457 nm) for subsea fluorescence and leak detection, and other wavelengths to meet your needs.

Aquorea LED Radiation Pattern in Water



Pin #	MCBH5M
1	GND
2	PWR
3	Strobe enable
4	RS-485 B(-)
5	RS-485 A(+)

Scientific wavelengths of light | Designed for deep-sea applications

The Aquorea Mk3 Colour is a high-efficiency, TTL synchronized **subsea LED** that can simultaneously operate as a lamp and strobe. Available in custom wavelengths, each LED Colour is designed for specific deep-sea applications:

- Far-red assists in capturing deepwater natural species behavior
- Deep-blue is ideal for bio-fluorescence and leak detection
- Additional wavelengths are available. Contact us for more information.



SubC LEDs and lasers are plug-and-play when coupled with the **Rayfin camera** and are easily integrated into subsea ROV, observatory, drop, tow, and battery-deployed camera systems.

Specifications		Deep-Blue	Deep-Red	Far-Red
Light Specs	Wavelength	457nm	624nm	740nm
	Intensity	2200 lumens	8400 lumens	108 μmols/sec
	Beam Angle	80% of the light is within an 80° beam 85% of the light is within an 90° beam		
	Reaction Speed	Approx. 190 microseconds		
Electrical	Protection	Short Circuit, UV-OV-RV, ESD, OT		
	Thermal Protection	Auto Dim/Shutoff		
	Control	Serial RS-485		
	Strobe	TTL 5V (active high)		
	Power	18-32 Vdc / 48 Watts		
Mechanical	Min./Max. Temperature	-10°C - +20°C in water		
	Materials	Sapphire, Grade 5 Titanium		
	Weight	0.9kg in water, 1.5kg in air		
	Depth Rating	6000m		

Specifications subject to change without notice. © 2010 SubC Control Ltd. All rights reserved. Rev. July 2021



Titanium construction

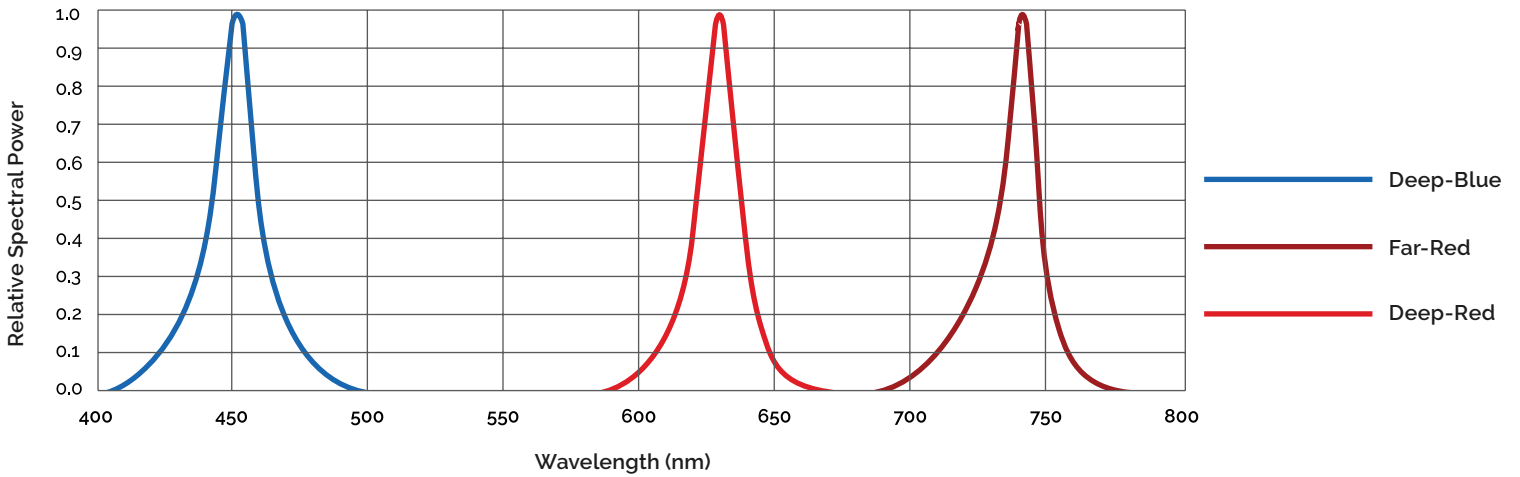


Smart subsea LED



80° Beam Angle

Typical Relative Spectral Power Distribution



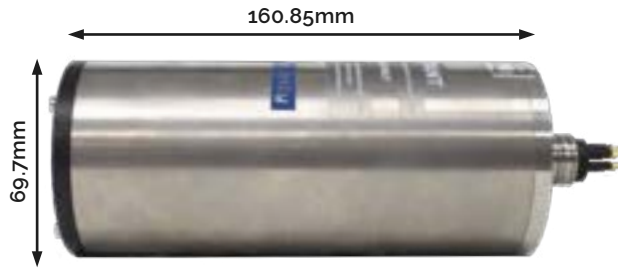
Deep-Red & Far-Red

The advantage of far-red light lies in the fact that most deep-sea creatures are unable to see in the red spectrum. The deep-red and far-red LEDs allow researchers to view biota in their natural behavior.

Deep-Blue

The deep-blue LED was designed for underwater bio-fluorescence and leak detection.

Fluorescent chemicals absorb energy from light and then emit a different colour of light. Bio-fluorescence is the absorption and reemission of light from living organisms.



Pin #	MCBH5M
1	GND
2	PWR
3	Strobe enable
4	RS-485 B(-)
5	RS-485 A(+)

Dimmable green laser | 3D modelling | Metrology

The Skate Laser is a precision subsea laser designed for subsea applications that require a high-quality image reference such as 3D modelling, machine vision, pipeline inspections, or marine species measurements.

It is available in various patterns and beam angles, including solid line beam or dotted grid pattern. SubC LEDs and lasers are plug-and-play when coupled with the [Rayfin camera](#).



Specifications		Skate Line Laser	Skate Grid Laser
Laser	Uniformity	=/- 20% (related to average power, within 80% of the line)	Dot spacing 24mm @ 1m distance
	Pattern Type	53.6° - line	17.1° - 10 x 10 dot grid
	Focus (Depth of Field)	0.1m - 5m <i>SubC can adjust the focus (depth of field) at factory</i>	
	Output Power (Total)	100 (mW-max.)	70 (mW-max.)
	Wavelength	520nm ± 10nm (green)	
Class		3B (avoid direct eye exposure)	
Electrical	Input Voltage	17-30 Vdc (OV cutoff > 30 Vdc)	
	Power Consumption	3W	
	Serial Control	RS485 @ 9600	
	Diode Temperature Protection	Auto dimming after 47.5°C diode temperature and cutoff at 49.5°C	
Mechanical	Material	Sapphire, Grade 5 Titanium	
	Depth Rating	6000m	
	Diameter	Ø 37.6mm	
	Length without connector	145.5mm	
	Weight (in air)	0.59kg	
	Weight (in water)	0.4kg	
	Operating Temperature	-20°C - +30°C	
Storage Temperature	-20°C - +50°C		
TTL	TTL Control	Can work both inverted and non-inverted TTL depending on the setting. The default is inverted TTL. If no TTL is present, the laser defaults ON.	
	TTL Max. Frequency	Up to 100 KHz	
	TTL Low	0-1.5 Vdc	
	TTL High	1.5-5 Vdc	

Specifications subject to change without notice. © 2010 SubC Control Ltd. All rights reserved. Rev. July 2021

LASER RADIATION
AVOID DIRECT EYE EXPOSURE

Maximum output of laser radiation: ≤5.00 mW
 Emitted wavelength: 520nm ± 10nm



Skate Mk2 Laser



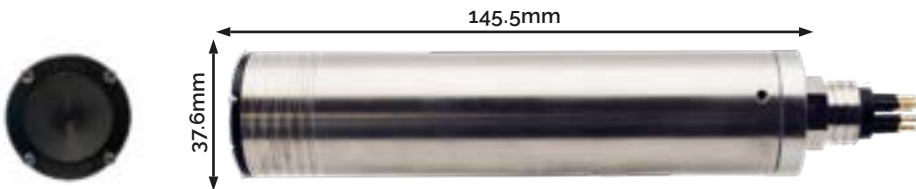
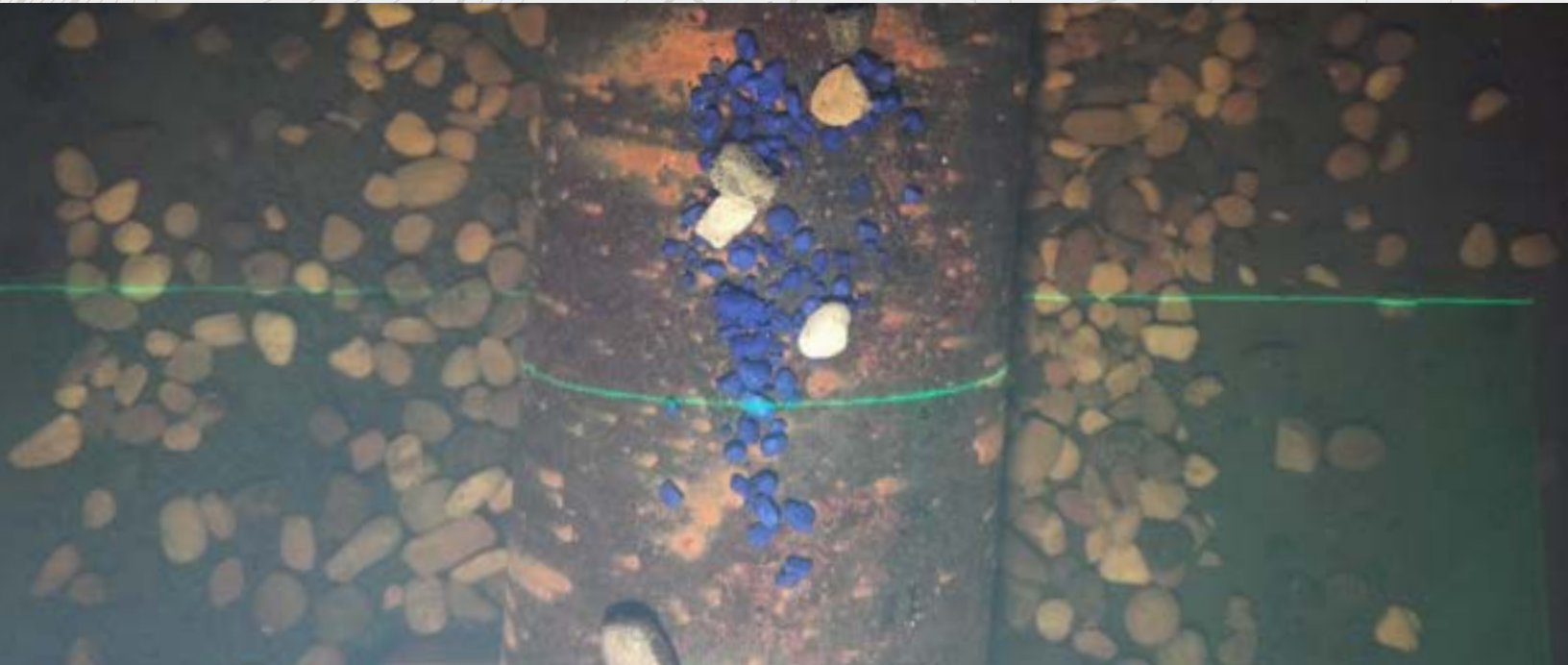
Titanium and sapphire construction

6000m

6000m depth rating



520nm, 100mW, Class 3R laser



Pin #	MCBH5M Titanium
1	GND
2	17 - 30 Vdc
3	TTL Modulation
4	RS-485 B(-)
5	RS-485 A(+)



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](#).

Precision points for reference in underwater photos

The **MantaRay** is a parallel beam laser designed for ROV and subsea systems. With a lifespan (MTBF) of at least 40,000 hours, the MantaRay laser is a dependable and reliable reference unit.

This laser projects two parallel beams that appear as green dots in images that are used to get distance and scale of underwater objects. It is lightweight, easily integrated with a subsea camera using a simple attachment, and is accurate to 5m distance. SubC LEDs and lasers are plug-and-play when coupled with the **Rayfin camera**.



Qualified for shipping within the USA, Canada and internationally.

Specifications		MantaRay Mk2 Parallel Lasers
Lasers	Parallelism	10cm ± 10mm @ 5m distance
	Output Power	≤5.00 mW
	Wavelength	520nm ± 10nm (green)
	Class	3R (avoid direct eye exposure)
	MTBF	40,000 hours
Electrical	Power	1.5 W per laser: 3W per parallel laser assembly
	Protection	Short circuit, over voltage, reverse voltage, ESD
	Min./Max. Temperature	-10°C - +30°C
	Voltage	15 Vdc - 32.5 Vdc
	Standard Control	5 - 30 Vdc TTL modulation
Observatory Control	ON/OFF via software controlled relay	
Mechanical	Material	Sapphire, Grade 5 Titanium
	Depth Rating	6000m
	Weight (in air)	700g
	Weight (in water)	400g

Specifications subject to change without notice. © 2010 SubC Control Ltd. All rights reserved. Rev. July 2021

Complies with FDA performance standards for laser products except for conformance with IEC 60825-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019

**LASER RADIATION
AVOID DIRECT EYE EXPOSURE**

Maximum output of laser radiation: ≤5.00 mW
Emitted wavelength: 520nm ± 10nm





Titanium and sapphire construction

6000m

6000m depth rating

Control Operations

(Standard) TTL Operation

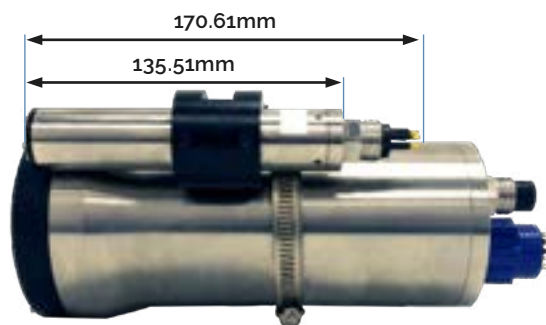
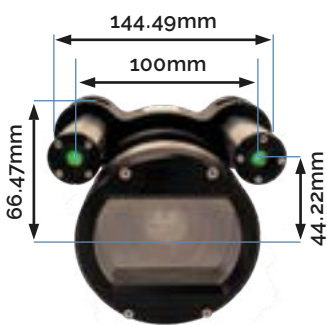
- The laser is disabled by default when power is applied. To enable, apply 5 - 30Vdc to Pin 3.
- When Pin 3 is left open or connected to GND, the output is disabled.

(Observatory) Relay Operation

- The laser is disabled by default when connected to an Observatory Rayfin. Connecting to a Standard Rayfin will turn on an Observatory MantaRay immediately and the laser will not be controllable. Only use an Observatory Rayfin with an Observatory MantaRay.
- To enable, toggle the power relay via SubC Rayfin Control.

Included

- Calibrated delrin mount for 89mm diameter camera
- Titanium hose clamps for attachment
- SUBC58-C-003 cable; MCBH5M to Y-splice 2x MCBH5F with locking sleeves



Pin #	Standard (MantaRay-Ti-100-2-P-2) MCBH5M	Observatory (MantaRay-Ti-100-2-P-3) MCBH5M
1	GND	GND
2	PWR	PWR
3	TTL Enabled	N/C
4	N/C	N/C
5	N/C	N/C



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](#).

Digital Video Recorder + Overlay (DVR+O)

- Input up to 6 channels of video
- Output video with HDMI or DVI
- Overlay and dive event log
- Stream video over the Internet or local network



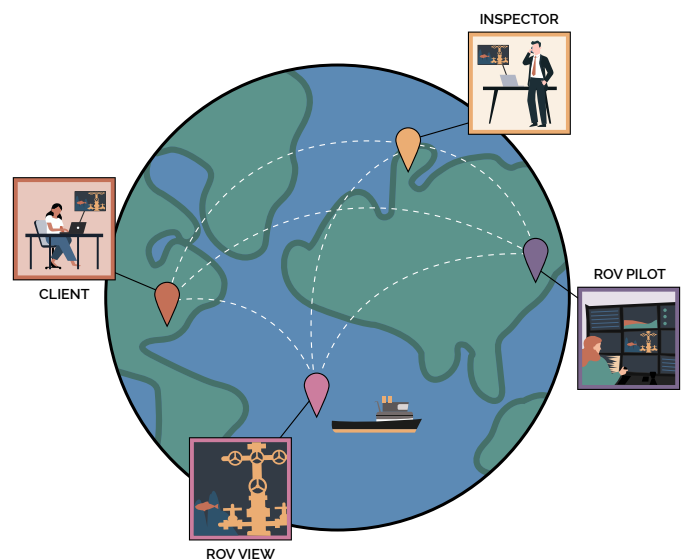
Real-Time Streaming

- Real-time decisions
- Cloud-based
- Multiple video feeds
- Flexible pricing options



Remote Operations

- Get information faster with real-time results
- Accelerate decision-making
- Reduce carbon footprint
- Reduce operational costs



Software with optional hardware for multi-camera video recording with overlay

Recording, data logging, and eventing your offshore inspection, survey or next big marine research discovery is made possible with the SubC DVR with Overlay. This powerful software is supported by optional high-performance hardware for unrivaled subsea digital video recording quality.



Multi-Camera Input

The system can support up to six camera channels, each with an input and output that can manage composite, up to two 4K channels, HD, IP, and SD video cameras.



Overlay Capability

Elevate and add value to your research and survey findings by including overlays such as date-time, recording timer, sensor data from RS232, RS485 or Ethernet, and company logos..



Compatible with Aize's Coabis & Integrity Elements

Streamline the project management of your ROV inspections and underwater surveys with Aize's Coabis and Integrity Elements integration.



Intuitive & Easy to Use

This highly versatile system is intuitive to use and can be operational in less than one hour. Plus receive full onboarding, a dedicated Customer Success Manager, and customer support.



Built-in Data Logging & Eventing

Beyond recording and blackboxing, automatically log data with date and time stamping. Plus, the system includes the ability to record a full eventing inspection log.



Remote Operations

Add SubC's Real-Time Streaming service and move key personnel onshore to conduct your inspection.

Choose the Option That's Right for You

Software Only

Install our high-performance software and use it with a PC or your existing DVR hardware*.

**Minimum hardware requirements. Information available upon request*

Software & Hardware

All the capabilities of our software combined with reliable hardware. Multiple video configurations are available to match your application. All common frame rates and resolutions are supported. Custom combinations of input and output channels are available.

All-in-One Inspection & Survey System

Choose the Subsea 4K and HD Video Survey system to manage complex ROV inspections and surveys effortlessly.

What you'll get:

- High-quality cameras providing uncompromising 4K and HD video and imaging
- Digital Video Recorder with Overlay (DVR+O) to record, log data, eventing, and more
- LEDs and lasers for superior footage that is captured with precision
- Real-Time Streaming subscription available to view and present live streaming video and audio from offshore directly to clients, no matter their location
- Comprehensive remote training and end-to-end support



Subsea 4K and HD Video Survey

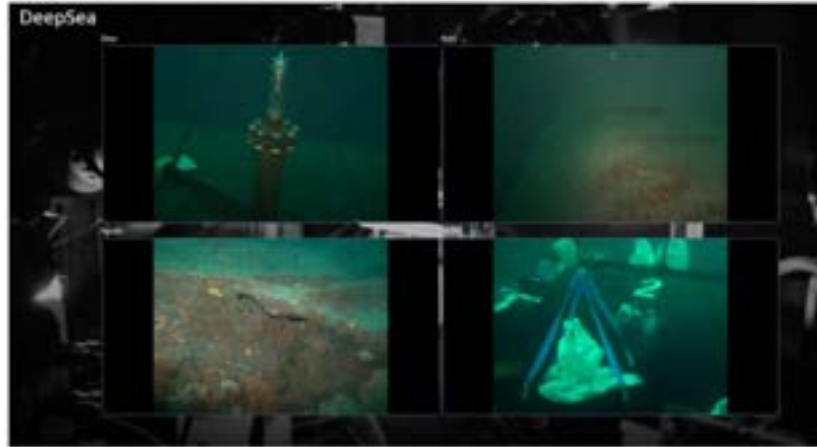


SubC is here to help you plan your next project.

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

A must-have solution for remote inspections and monitoring that easily scales to the size of your operation. View and present live streamed video and audio from your assets directly to your offices or clients, no matter their location.

Example Client Feed



Features

- Real-time, VSAT optimized video feeds with the lowest latency video on the market (1 second or less)
- Compatibility with underwater cameras and DVRs, with resolutions that include SD, HD, 4K (composite, SDI, HDMI, etc.)
- Software based so no proprietary hardware necessary
- Unlimited users, plus secure, multi-viewer access that you control
- Two-way audio communication between offshore and landside viewers
- Work over any connection, frame rate, and video quality to maximize the stream quality based on bandwidth
- Available real-time data synchronization to support offshore sensors such as CTD, depth, and GPS

Why Real-Time Streaming?



Get Information Faster



Accelerate Decision-Making



Reduce Environmental Impact and Improve Crew Safety



Reinvest Vessel & Crew Savings in Other Priorities



Risk Mitigation

Real-Time Streaming Applications

Present Live Inspections

Present live video from a camera on an ROV or diver directly to clients shoreside so they can make timely decisions based on relevant data.

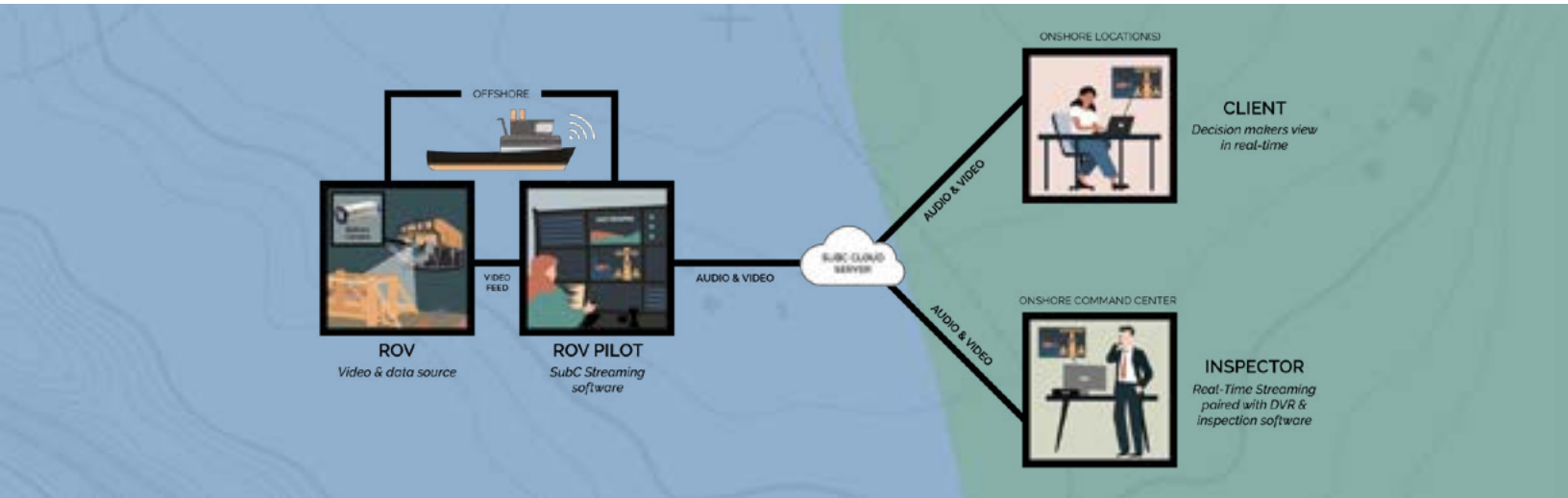
Conduct Remote Inspections

Deliver real-time data while conducting your inspections remotely. Reduce the number of crew and add to your bottom line.

Pilot Vessels for Remote Inspections

Go fully autonomous by streaming video while remote piloting your vessels, including USV and ROVs.

Example Application: Conduct Remote Inspections



Flexible Pricing

Pay As You Go

Ideal for users who want all the benefits but don't want a commitment.

- Pay-per-use presentations
- Standard customer support
- Available data sync add-on

Bundle & Save

Best value for businesses wanting a set amount of usage.

- Save 15% with a set 30 days worth of streaming
- Standard customer support
- Available data sync add-on

Standard

Perfect choice for high-use businesses who need a reliable solution.

- Save 20% when you commit to a subscription
- Standard customer support
- Available data sync add-on

Enterprise

Custom-tailored plans with premium features and priority support.

- Customized pricing for your unique needs
- Priority 24/7 customer support
- Data sync add-on included
- White-label company branding

Try Real-Time Streaming **FREE** for 30 days. [Contact Us to Learn More.](#)



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](#).

SubC's innovative and cutting-edge cloud-based software and comprehensive hardware technologies can combine to unlock a number of remote capabilities:



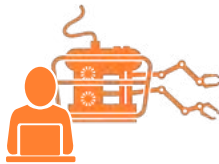
Traditional inspections

Enhance traditional offshore surveys, inspections, maintenance and repair to include onshore stakeholders and staff.



Remote inspections, surveys, maintenance & repairs

Move clients and inspection staff shoreside for your inspections, surveys, maintenance and repairs.



Remote ROV and USV piloting

Live video to command and control ROV and USV from any shoreside remote operations center (ROC), no matter the location.

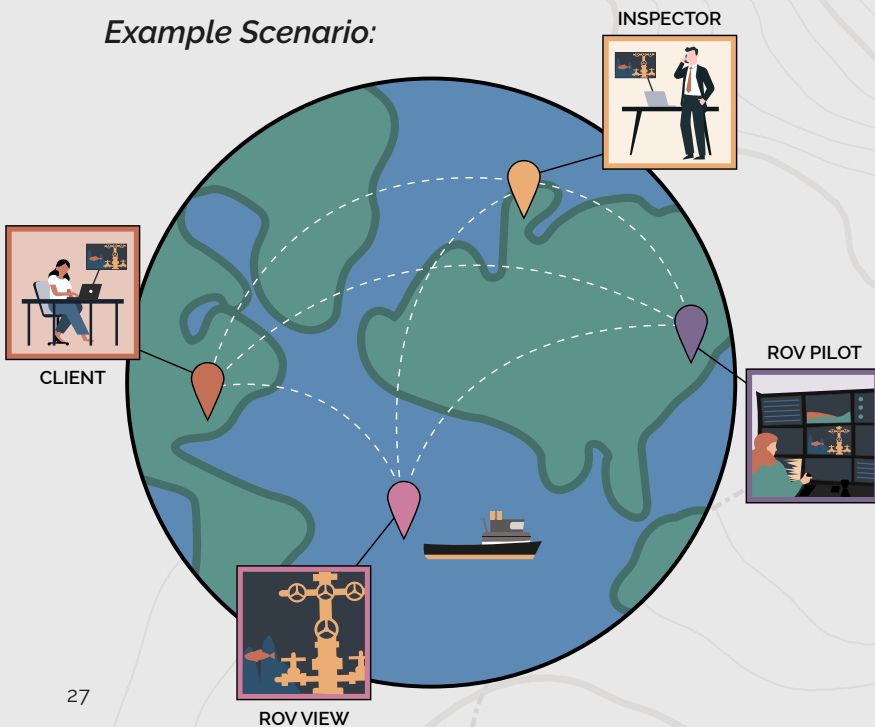


Fully remote, cloud-based integration

Go fully remote with total cloud-based integration and all staff onshore.

Benefits of Remote Operations

Example Scenario:



- ✓ Get information faster with real-time results
- ✓ Accelerate decision-making and instant feedback
- ✓ Reduce carbon footprint and environmental impact
- ✓ Improve crew safety
- ✓ Reduce operational costs and reinvest saving in other priorities
- ✓ Risk mitigation

Remote Operations Solutions

Our adaptable, modular, agnostic, and scalable solutions can combine to meet you where you're at and take your operations in to the future.



Real-Time Streaming

Upgrades any camera to stream live low latency video synchronized with telemetry data from offshore to anywhere in the world.



DVR+O

Featuring SubC Inspector

An all-in-one solution that equips your remote camera feed(s) with the power to record, log data, blackbox, and fully log inspection eventing.

Blackbox

Feel secure knowing all your video footage and data are recorded and backed-up.

Data Routing

Coming Soon

Plug and play software to transmit your vehicle control from onshore to offshore.

Customization

Our team can work to meet your company's custom requirements like client white labeling and other special features.

Viperfish Camera

Coming Soon






This innovative camera can stream live, real-time video to anywhere in the world, with no additional hardware or software required.

Audio Rooms

Coming Soon

Easily connects distributed teams with instant ship to shore audio communications.

Why SubC For Remote Operations?

-  Lowest latency video on the market ensures you can get the job done, just like you were there
-  Already proven and trusted by offshore industry leaders
-  Open API for ease of integration to your existing workflow
-  One-stop shop with full suite of offerings that are adaptable, modular, agnostic and scalable
-  Custom features, like embedding and white labeling

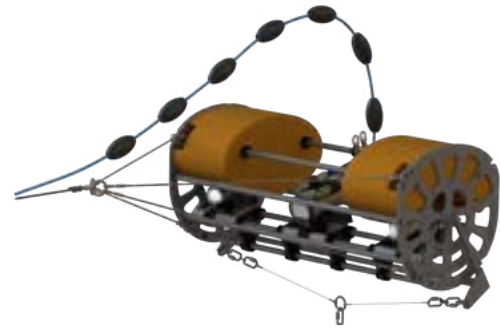


SubC is here to help you plan your next project.

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

Tow Camera System

- Operates with up to 410m of cable
- View live in HD & record in 4K
- Continuous, high-resolution photos up to 4Hz with strobe sync



Subsea 4K & HD Video Survey

- 6 channels of 4K, HD and SD video
- Multiple channel overlay of graphics, text and logos
- Ethernet IP camera compatibility
- 10x optical zoom capability



Subsea Digital Stills

- High resolution digital stills with embedded metadata
- Gigabit Ethernet control and real-time media download
- 4K & HD video clips stored to 512GB solid state memory



Autonomous Camera

- High-resolution digital stills with LED strobe synchronization
- 4K & HD video clips stored to 512GB solid state memory
- Compatible with various batteries for different deployment durations
- Scripting using SubC open-source API



Observatory

- High-resolution digital stills with LED strobe synchronization
- 4K & HD video clips stored to 512GB solid state memory
- Corrosion-proof Titanium & Sapphire
- Scripting using SubC open-source API

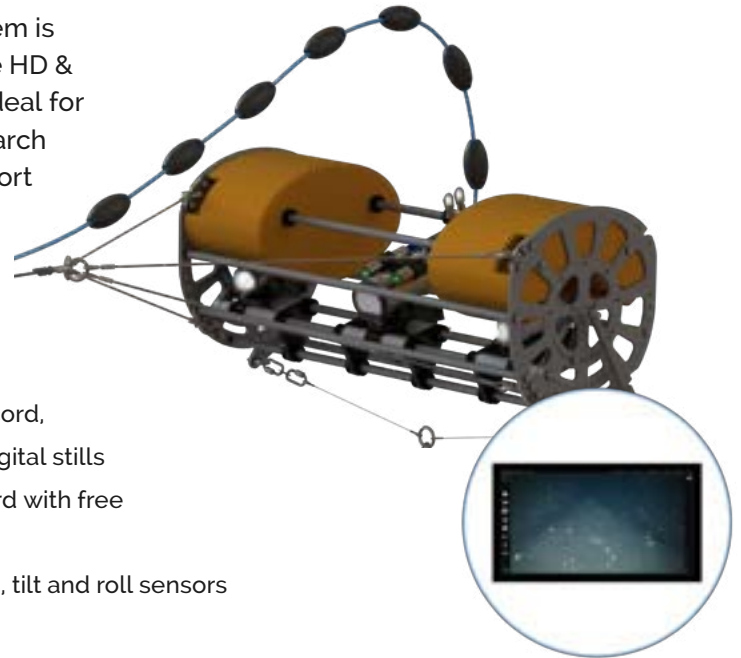


A coastal water, competitively priced, high-performance solution

Durable and high-performance, the SubC Tow Camera System is designed to capture and store underwater observations (live HD & 4K recording). Field-tested and ocean-ready, the system is ideal for marine observation, fisheries research, conservation, and search and rescue that need to cover a large amount of area in a short period of time.

What You Get

- Sturdy frame, designed to withstand harsh ocean conditions
- Up to 410m of kevlar tow cable
- SubC's signature **Rayfin camera**, fully adjustable and ready to record, capture, and store hours of video and 1000's of high-resolution digital stills
- Rayfin software that provides a real-time feed and comes standard with free updates to keep your system cutting edge
- NMEA sensor data logging of GPS and altitude with built-in depth, tilt and roll sensors
- Adjustable LEDs and lasers for precision and superior footage
- Optional electric winch to deploy your system



Real-Time Video Stream



Cost-effective

A smart alternative to expensive AUV and ROV deployments for collecting high-quality seafloor images, video and data.



Convenient & Easy to use

Power your system, and have real-time control and monitoring of video and data topside with SubC's Boost-Power Comms technology.



Environmentally Conscience

SubC believes in environmental stewardship and has designed the system to have minimal contact with the seafloor.



Stable, Rugged Design

The hydro-dynamic tow frame enables a stable platform while maintaining a constant altitude. The unique design allows the system to maneuver over obstacles like rocks or fishing traps.



Workflow Compatibility

The system saves you time on data synthesis and report generation with compatibility for post-survey workflows such as **BIIGLE**.



End-to-end Support

Invested in the success of your system and project, we offer comprehensive remote training and ongoing support.

Specifications		Tow Camera System
Tow Frame and System	Weight (in air)	49.4 Kg (in air) / -9 Kg (in water - buoyant)
	Tow frame dimensions	1.20m Wide x 0.48m Diameter
	Adjustability	Mounts adjustable from 21° to 90° vertical in 7.5° increments
	Maximum operating depth	380m (limited by cable length and tow speed)
	Tow height	Adjustable from 1 - 3m
	Clump weight	30Kg with built-in Altimeter
Camera System	Image Format and Rate	JPEG (3Hz) and RAW (0.5Hz)
	Resolution and Capacity	HD (40+hr) and 4K UHD (10+hr)
	LiquidOptics FOV	82° diagonal (4:3 format)
	Power requirements	AC 110 - 240V, 200W topside (BPC unit)
	LED intensity	16,000 lumens (lamp) / 50,000 lumens (strobe)
	Data Logging	NMEA standard @ 1Hz
	Integrated Sensors	Altitude, Depth, Tilt, Roll
Winch and Cable	Power requirements	AC 120V, 1500W
	Cable strength rating	455Kg (working load) / 1500Kg (breaking strength)
	Winch max speed	0.3m/s - 0.5m/s
	Dimensions	97cm(L) x 76cm(W) x 70cm(H)
	Winch and cable weight	131kg - 158kg (dependant on cable length)
	Operating Temperature	-10°C to 40°C

Specifications subject to change without notice. © 2010 SubC Control Ltd. All rights reserved. Rev. July 2021

Case Studies



Tow Camera System Development: Driving Innovation Through Customer Collaboration

Learn more about how the Tow Camera System was developed through collaboration with customers and understanding the challenges they faced when mapping and imaging the seafloor.



Proving the Tow Camera System: Field Tested & Ocean Ready

Get a behind-the-scenes look at the extensive flume tank testing and sea trials conducted with the Fisheries & Marine Institute and the Government of Canada's Department of Fisheries to prove the Tow Camera System is ocean-ready.



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](#).

Manage complex ROV surveys effortlessly with SubC's Digital Video Recorder with Overlay, Cameras, and Real-Time Streaming

This subsea imaging system was designed to reduce complexity and provide an easy user experience by combining all video management functions into one suite. Consisting of a combination of our subsea **Digital Video Recorder with Overlay** and **cameras**, the Subsea 4K & HD Video Survey system enables the highest quality offshore inspections and surveys. This complete system provides you with all of the software and hardware required for an effective subsea inspection without all the cost.

- 6 channels of 4K, HD, IP, and SD video
- Live video at multiple resolutions from SD, HD and 4K
- Compatible with AIZE Integrity Elements
- Flexible for applications ranging from offshore asset inspection to marine science research
- Comprehensive set of features such as blackbox, overlay and data logging
- All-in-one cameras with optical zoom capability deliver high-quality imaging
- Complete solution that includes live survey, offshore video streaming over VSAT, and post-review workflow

1



High-Quality Cameras

With its proprietary water-corrected LiquidOptics, rugged build, and versatile features, SubC's low-latency cameras are purposely built to withstand severe marine environments. Consistently providing uncompromising 4K and HD video and imaging quality, SubC cameras deliver live HD over Ethernet or coax, and live 4K over fiber optics.

All cameras and accessories are certified to 6000m of water.

2



DVR with Overlay

Record your next big marine research discovery or survey with SubC's intuitive Digital Video Recorder with Overlay.

Compatible with all common video standards up to 4K, the DVR with Overlay offers 6 channels of 4K, HD, IP, and SD video and can be up and running in less than 1 hour. The DVR with Overlay provides data logging with time-sync events and supports recording, blackboxing and dynamic overlay of all camera feeds.

3



Offshore Real-Time Streaming

Conveniently live stream HD subsea video from any ROV or subsea system during offshore and marine operations. Using an internet connection, simply log in to the software from anywhere in the world to view footage in real time.

SubC's Offshore Real-Time Streaming is integrated with SubC's Digital Video Recorder with Overlay and cameras to provide multiple low-latency video sources with two-way audio communication.

GEOMAR Helmholtz-Zentrum für Ozeanforschung Kiel

Friedrich Abegg & Dr. Peter Linke

GEOMAR

This study utilized SubC cameras within the ROV KIEL 6000, a deep-diving platform rated for depths of 6000 meters.



Expedition Report: 2017 Southeast Deep Coral Initiative (SEDCI) expedition aboard NOAA Ship Nancy Foster

Daniel Wagner, Morgan Kilgour & Peter Etnoyer

NOAA

With the ROV Odysseus on board, the NOAA ship Nancy Foster conducted 14 dives to explore deep-sea coral using SubC cameras.

Insights into the abundance and diversity of abyssal megafauna in a polymetallic-nodule region in the eastern Clarion-Clipperton Zone

Amanda Ziegler, Diva Amon et al.

University of Hawaii

The University of Hawaii were the first to make estimates of abundance and diversity of megafauna when they used SubC cameras at four different sites.



For Fast Digital Imaging Inspections (FDII), clip generation, photogrammetry, & 3D modelling

Save time and money by collecting accurate, quality images and data. Replace traditional video surveys and inspections with fast digital stills with high-resolution zoom. Easily integrate with any ROV for real-time access to images over ethernet and the onboard memory that you come to expect .

This flexible, fairly-priced system combines a Rayfin high-resolution subsea IP camera with LED strobes and parallel point or line lasers. Best used for Fast Digital Imaging Inspection (FDII), clip generation, photogrammetry, 3D modeling, scripting, and more. Available to buy or [rent](#).



Superior Optics & Sensor

Capture the sharpest images in harsh and low-light environments thanks to the scratch-resistant sapphire lens paired with water-corrected LiquidOptics™ and high-quality sensor.



Built-in Storage & Sync

Take and save thousands of digital stills and hours of video (4K=10+, HD=40+) with up to 1TB of solid-state memory. Plus, record topside on an NAS and time sync with an NTP server.



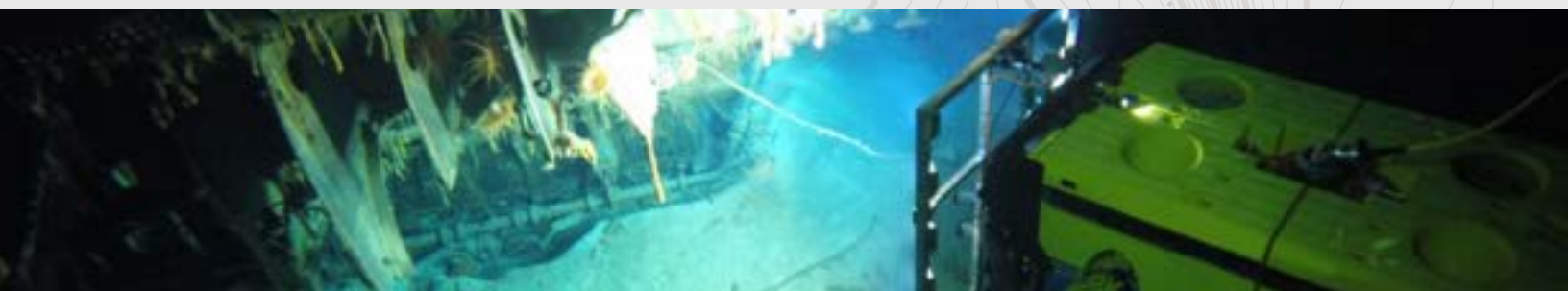
Real-Time Viewing & Control

Conveniently view and download your footage in real time while effortlessly controlling your camera, lights and lasers from a topside PC.



Easy Integration & Upgrades

Auxiliary ports allow you to easily plug in lights, lasers, and other sensors to enhance the quality of your footage. Free software updates keep your system cutting-edge.



Included in the Subsea Digital Stills System

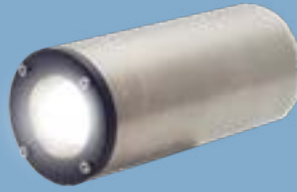
1



Rayfin Mk2 Camera

- Record and store 10+ hours of 4K video, 40+ hours of HD video and thousands of digital stills
- Is a data-logger, includes depth, tilt and roll sensors, and can store NMEA sensor data
- Pre-loaded automated scripting settings or design your own to fit your survey needs

2



LEDs

- High-efficiency subsea LEDs can operate as a lamp and strobe
- Activation time is tightly synchronized with the camera sensor exposure time (within 250 nanoseconds) to ensure the video stream is uninterrupted while collecting photos

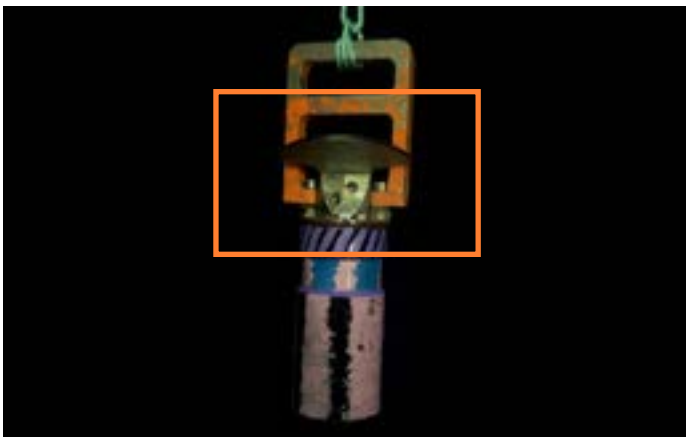
3



Lasers

- Lifespan (MTBF) of at least 40,000 hours
- Lightweight, easily integrated, and accurate to 5m distance
- Available in various patterns and beam angles, including parallel, solid line beam or dotted grid pattern

Example of Subsea Digital Stills System Post-Processing High-Resolution Zoom



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](#).

Highly-customizable, complete time-lapse digital stills and 4K/HD video system

A dependable and effective solution for autonomous subsea camera deployments. Ideal for use with drop frames, baited or unbaited landers, AUV systems, and more. Eliminate the need for expensive cabling and infrastructure with power and battery options that meet your needs. Plus, harness the storage, scripting, and data-logging power of the Rayfin Mk2 Benthic camera and other SubC best-in-class technologies.



Complete Time-Lapse System

Save time and money with an all-one-system that is ready to deploy. Built-to-order, you get SubC's signature Rayfin Mk2 Benthic camera that is programmable and runs scripting via our open-source API, battery, and optional LEDs, and lasers.



Versatile Equipment

Your system equipment can be used for multiple applications. Repurpose your camera, battery, LEDs and lasers beyond autonomous deployments and get more out of your investment.



Tailored Power Supply

Power and battery options range from one day to more than a year. We'll recommend the best choice for your application. Or, integrate the system with your existing battery.



Field-Proven and Backed by Experience

SubC Imaging has been designing and manufacturing Autonomous Camera Systems for 10+ years.



Seeing is Believing

Short-, mid-, and long-term deployments have been proven in the field in marine research, observations, and benthic studies.

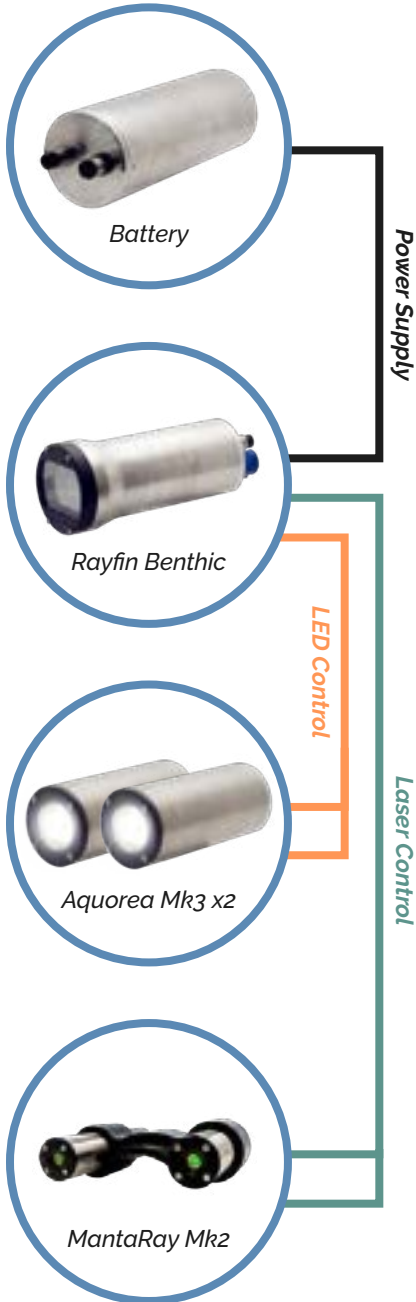
Case 1: [Comparative fishing experiments](#)

Case 2: [Estimating Greenland Shark local densities](#)

Case 3: [Evaluation of aquatic resources and ecosystem of the Labrador sea frontier](#)

Sample Configuration

This is just one of the many options our team can tailor for your needs



Battery 259

- A high-capacity Lithium-Ion based battery module for stand-alone operations
- UN38.3 certified and eligible to ship via cargo plane
- For safety, battery includes over charge, over discharge, over drain, and short circuit protection

**Alternative battery options are available. We can recommend the best solution for your application needs.*

Rayfin Mk2 Benthic Camera

- Record and store 10+ hours of 4K video, 40+ hours of HD video and thousands of digital stills
- Double your recording capacity with an optional upgrade to 1TB of storage
- Is a data-logger, includes depth, tilt and roll sensors, and can store NMEA sensor data
- Comes with pre-loaded automated scripting settings or design your own to fit your survey needs

LED Lights

- High-efficiency subsea LEDs can operate as a lamp and strobe
- Activation time is tightly synchronized with the camera sensor exposure time (within 250 nanoseconds) to ensure the video stream is uninterrupted while collecting photos

Lasers

- Lifespan (MTBF) of at least 40,000 hours
- Lightweight, easily integrated, and accurate to 5m distance
- Available in various patterns and beam angles, including parallel, solid line beam or dotted grid pattern

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

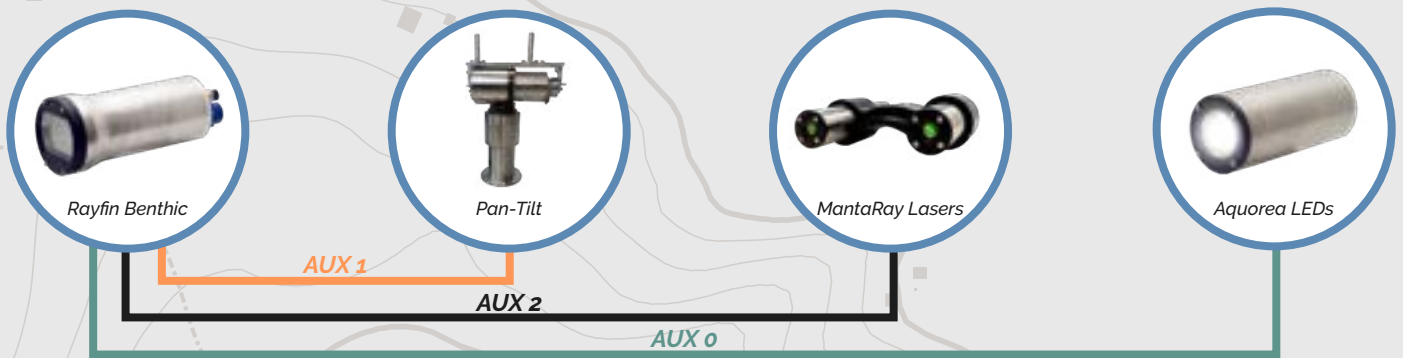
Your camera can simplify integration and save time. It can double as a mux to control up to four devices such as LEDs, lasers and pan-tilts. And, as a data logger, the system has built-in tilt and roll sensors, and can store NMEA sensor data.



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)		

Specifications subject to change without notice. © 2010 SubC Control Ltd. All rights reserved. Rev. September 2022



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](#).

Design and Integration Consulting

SubC offers two hours of complimentary design and integration from our Subject Matter Expert (SME) of your solution into your system/network. This work could include, but is not exclusive to: customized workflows, custom integration (network, data, etc), custom set-up, mechanical design, and more.

Additional time, beyond two hours, will be billed to the client via mutual agreement.

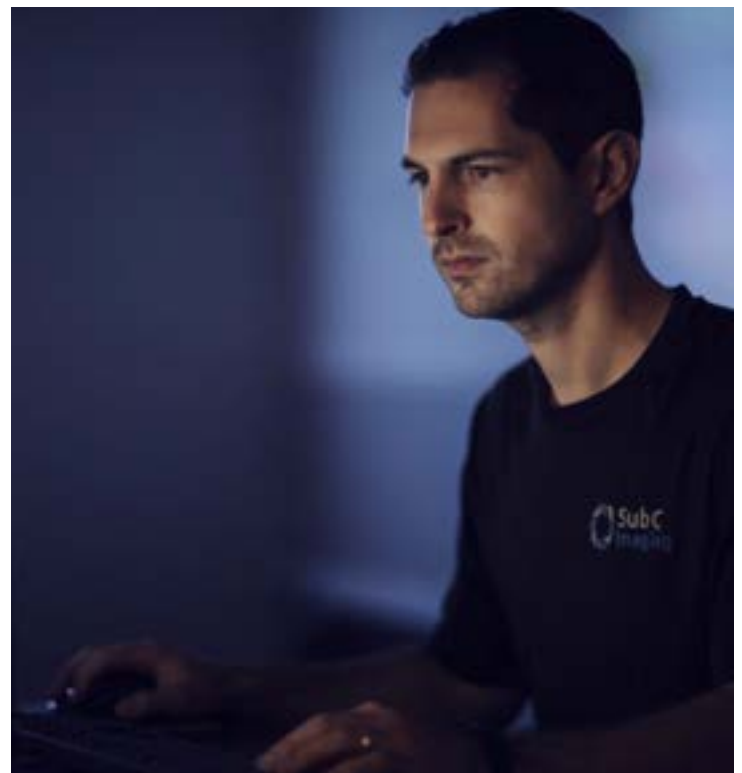
Warranty, Standard Tech Support and Software Updates

Receive one year of hardware warranty and tech support from the time of shipping from the factory. Free software updates are also included (product dependant).

Standard 1-Year Warranty Standard Support Terms

Hours: 1130 - 2000 (Monday - Friday) UTC
Email: support@subcimaging.com
Phone: +1-709-702-0392

Extended warranties and 24hr support available and can be quoted upon request.



Client Success

SubC provides complimentary remote onboarding training for all new purchases. You'll receive a 1-hour session with a Client Success Manager where they will remotely demonstrate the product/software capabilities and conduct a Q&A session.

We also provide quarterly check-ins to ensure the equipment is meeting expectations and to offer any additional tips. Any training time beyond the first hour will be billed to the client via mutual agreement at an hourly rate.



Ian McMillan
Sales and Partnership
Director



Marcus Morrissey
Customer Success
Manager



Paul Smith
Sales Representative



Erica Peach
Sales Coordinator

Phone: 1-709-702-0395

Email: team@subcimaging.com

Support: support@subcimaging.com

