



C2C TECHNOLOGY

DIGITAL  
FISHERY

**C2C TECHNOLOGY**

# PRODUCT MANUALS

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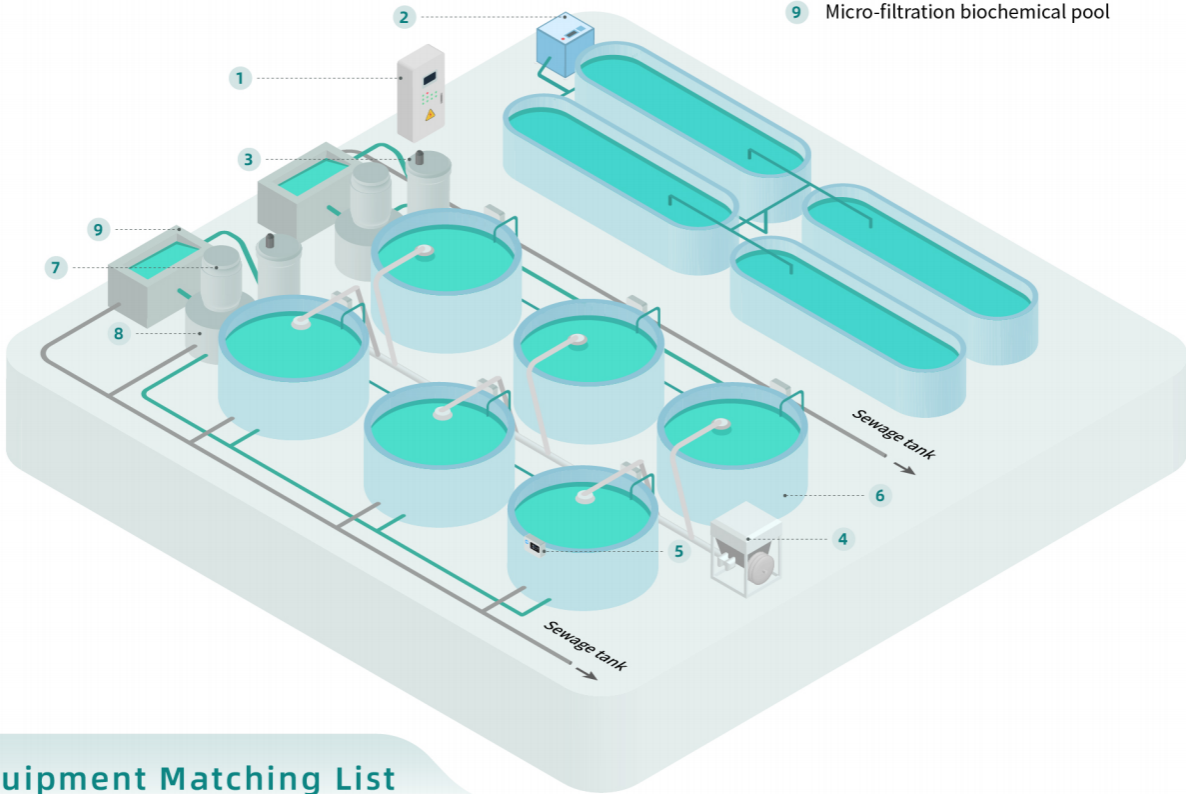
15 UYU Application

16 Product

30 User Cases

## FACTORY-BASED CIRCULATING AQUACULTURE MODEL

- 1 Intelligent control cabinet
- 2 Air suspension high-speed aerator
- 3 new water system
- 4 Intelligent feeder
- 5 Water Quality Monitoring Professional Edition
- 6 PP fish pond
- 7 Degassing device
- 8 sewage collection tank
- 9 Micro-filtration biochemical pool



### Equipment Matching List






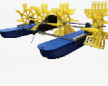
Number	Equipment name	Equipment Picture	Main Function	Function Details Page
1	Intelligent control cabinet		Centralized management of equipment circuits Equipped with water quality monitoring system to detect water quality data online Connect the liquid level sensor to realize automatic start and stop of the micro-filtration machine	Page 22
2	Air suspension high-speed aerator		High efficiency aeration and oxygenation Ultra-quiet operation No need to add lubricating oil	Page 27
3	new water system		Oxygenating the bottom of the fish pond Evenly up and down water fish pond living water	Page 28
4	Intelligent feeder		Centralized feeding device Remote start and stop of feeder Timing automatic feeding Feeding records are uploaded to the cloud in real time	Page 25
5	Water Quality Monitoring Professional Edition		Online monitoring of dissolved oxygen, water temperature, and pH Access water cameras to supervise farming areas	Page 16

# TRADITIONAL FARMING MODEL

- 1 Water quality monitoring standard version
- 2 Intelligent controller
- 3 Water surface surveillance camera
- 4 Intelligent feeder
- 5 Intelligent variable frequency aerator-water wheel type
- 6 Intelligent variable frequency aerator-impeller type
- 7 Dissolved oxygen sensor
- 8 pH sensor

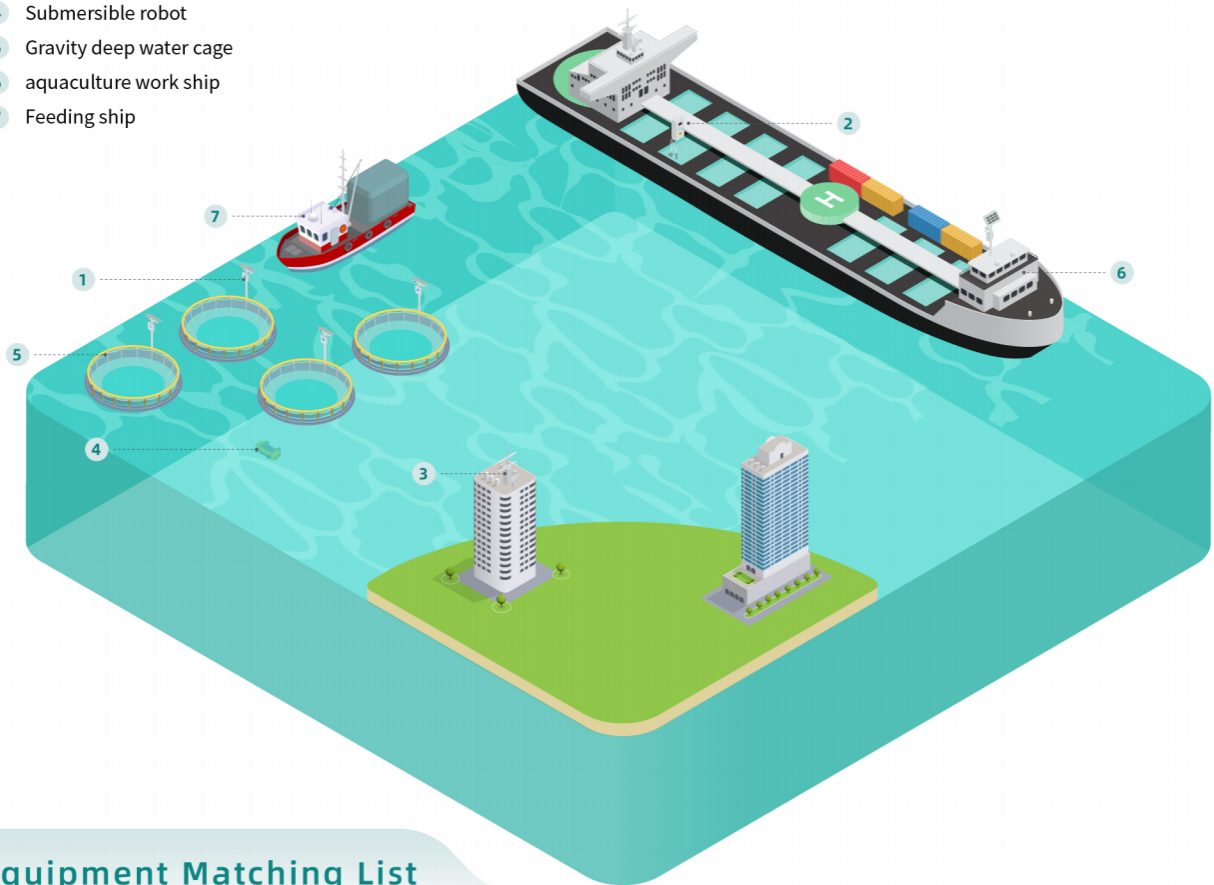


## Equipment Matching List

Number	Equipment name	Equipment Picture	Main Function	Function Details Page
1	Water quality monitoring standard version		Online monitoring of dissolved oxygen, water temperature, and pH	Page 16
2	Intelligent controller		Remote start and stop of controlled equipment Controlled equipment failure alarm Controlled equipment current and voltage monitoring	Page 24
3	Water surface surveillance camera		2 million pixels Wired/WiFi transmission monitoring screen	Page 17
4	Intelligent feeder		Remote start and stop of feeder Timing automatic feeding Feeding records are uploaded to the cloud in real time	Page 25
5	Intelligent variable frequency aerator-impeller type		Remote switch aerator Equipment failure alarm View current, voltage, power and speed	Page 29
6	Intelligent variable frequency aerator-water wheel type			

# OCEAN RANCHING CONSTRUCTION

- 1 Ocean ranching supervision terminal
- 2 Intelligent control cabinet
- 3 Self-built network communication
- 4 Submersible robot
- 5 Gravity deep water cage
- 6 aquaculture work ship
- 7 Feeding ship



## Equipment Matching List

Number	Equipment name	Equipment Picture	Main Function	Function Details Page
1	Ocean ranching supervision terminal		Solar powered 4G communication transmission 180-degree ultra-wide angle supervision of farming area	Page 19
2	Intelligent control cabinet		Centralized management of equipment circuits Equipped with a water quality monitoring system to detect water data online	Page 22
3	Underwater camera		4 million pixels Fixed-point positioning and monitoring of fish groups Real-time transmission of monitoring images	Page 17
4	Submersible robot		Remote control underwater network patrol Flexible cruising to monitor fish groups	
5	Self-built network communication		25 kilometers offshore communications Provides high-speed 30Mbps wireless transmission rate	Page 21

# Uyu intelligent aquaculture management system

DIGITAL FISHERY  
UYU - GZ - CHINA

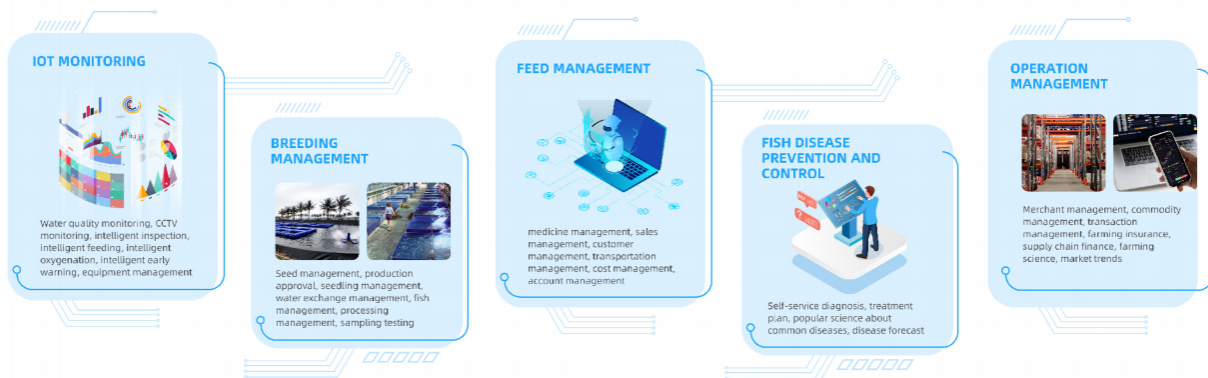
With hardware + big data as the core, Uyu platform combines integrated IoT equipment and Internet technology to record and analyze data such as farmed, processing, sales, warehousing, and logistics, so as to realize water quality monitoring, data acquisition, production management, commodity trade, finance, insurance, fully traceable Internet of digital fishery comprehensive service system. The platform is divided into basic version and professional version, with functions including water quality monitoring, data collection, production management, trading mall, supply chain finance, agricultural insurance, etc.



## ADVANTAGES

- 01 INTELLIGENT EQUIPMENT**  
5G + Intelligent IoT
- 02 DATA VISUALIZATION**  
From water quality monitoring to intelligent early-warning all visible
- 03 ALL SCENES ARE CONNECTED**  
All data from the pond to the mobile terminal are connected
- 04 PROCESS TRACEABILITY**  
From seedling management to the table is traceable
- 05 FULL COVERAGE OF COST**  
From feed, animal protection costs to transportation costs are coverage
- 06 EMPOWER THE WHOLE INDUSTRY CHAIN**  
From upstream feed to downstream fish products trading, to insurance and finance, empower the whole industry chain

## PRODUCT FUNCTION

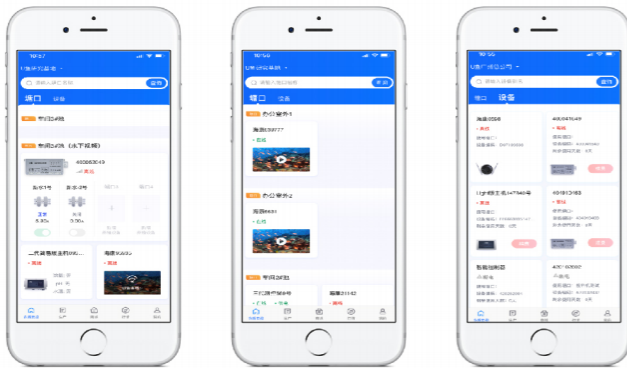


07 /



<https://aquasmart.c2csingapore.com> whatsapp+80537572 info@c2csingapore.com

## Basic version



The basic version supports mobile terminal and PC terminal to view real-time water quality, video and other data information; Intelligent control function is provided to support intelligent control of electrical equipment (aerator, feeding machine, etc.) in a variety of ways in the mobile APP; Provide production management function, and support mobile APP to record the production process ;It provides data storage services and supports mobile APP and PC terminal to view water quality data records, electrical equipment switch records, and production process data records.

## Professional Version

The Pro version has all the features of the base version; Provide management statistics function to display information such as the scale, breeding profile, inventory, sales and other information of all farms in the institution in one page; Provide staff management and audit functions, manage the staff according to the department, role, major events audit, implement the staff management system; Provide traceability files, manage the upstream and downstream of the breeding process such as suppliers, customers and transportation, track the sales and processing process, build the brand image of the enterprise, and achieve the whole traceability; Provide expense management functions, accurately calculate the costs and expenses incurred in the breeding process, and settle the customer receivables.



## SaaS

It can be personalized and customized according to the needs of users, and create a "Fishery brain" to realize the digitalization, intelligence and visualization closed-loop of aquaculture.



Application categories	First level function	Secondary function	Level three function	Version				
				Free	Standard	Enterprise	Customized	
Aquaculture management system (APP)	Production	OA approval	Pending review			✓	Supports adding and deleting fields, modifying data logic, and adding functional modules	
			Audited			✓		
			Initiated			✓		
			CC			✓		
		Data center	Farming overview		✓	✓		
			Feeding overview		✓	✓		
			Medicine overview		✓	✓		
			Loss and storage		✓	✓		
			Cost of pond storage		✓	✓		
			Pond desktop			✓		
			Area desktop			✓		
			Apartment desktop			✓		
		Main data	Farming cycle	✓	✓	✓		
			Species	✓	✓	✓		
			Pond management	✓	✓	✓		
			Supplier management	✓	✓	✓		
			Customer management	✓	✓	✓		
			Transportation management		✓	✓		
		Fry management	Information of fry	✓	✓	✓		
			Purchase of fry	✓	✓	✓		
			Acceptance of fry	✓	✓	✓		
			Fry dropping	✓	✓	✓		
			Pond sampling	✓	✓	✓		
			Pong cleaning	✓	✓	✓		
		Feed management	Information of feed	✓	✓	✓		
			Price of feed	✓	✓	✓		
			Purchase of feed	✓	✓	✓		
			Storage of feed	✓	✓	✓		
			Allocation of feed			✓		
			Secondment of feed			✓		
			Feeding	✓	✓	✓		
			Inventory of feed	✓	✓	✓		
Medicine management	Information of medicine	✓	✓	✓				
	Storage of medicine	✓	✓	✓				
	Allocation of medicine			✓				
	Secondment of medicine			✓				
	Prescription of medicine	✓	✓	✓				
	Pond use	✓	✓	✓				
	Area use	✓	✓	✓				
	Inventory of medicine	✓	✓	✓				



Application categories	First level function	Secondary function	Level three function	Version			
				Free	Standard	Enterprise	Customized
Aquaculture management system (APP)	Production	Consumables management	Information of consumables			✓	Supports adding and deleting fields, modifying data logic, and adding functional modules
			Purchase of consumables			✓	
			Storage of consumables			✓	
			Dispatch of consumables			✓	
			Secondment of consumables			✓	
			Delivery of consumables			✓	
			Inventory of consumables			✓	
		Sales management	Pre-sale application			✓	
			Sales confirmation			✓	
			Harvest management	✓	✓	✓	
			Collection and settlement	✓	✓	✓	
		Loss management	Loss of pond	✓	✓	✓	
			Loss of area	✓	✓	✓	
			Loss warning	✓	✓	✓	
			Seedling management	✓	✓	✓	
	Daily management	Test management	✓	✓	✓		
		Log of patrol	✓	✓	✓		
		Record of water change	✓	✓	✓		
	Cloud control	Pond management		✓	✓		
		Device management		✓	✓		
Aquaculture management system (PC)	Information of management	Seedling data			✓	✓	
					✓	✓	
					✓	✓	
					✓	✓	
					✓	✓	
					✓	✓	
		Harvest data			✓	✓	
					✓	✓	
					✓	✓	
					✓	✓	
	Feeding data			✓	✓		
				✓	✓		
				✓	✓		
				✓	✓		

Application categories	First level function	Secondary function	Level three function	Version			
				Free	Standard	Enterprise	Customized
Aquaculture management system	Information of management	Medicine data		✓	✓	Support customized data reports (Within production data range)	
				✓	✓		
				✓	✓		
				✓	✓		
		Cost data		✓	✓		
				✓	✓		
				✓	✓		
				✓	✓		
				✓	✓		
				✓	✓		
				✓	✓		
				✓	✓		
				✓	✓		
				✓	✓		
		Indicator analysis		✓	✓		
				✓	✓		
				✓	✓		
				✓	✓		
				✓	✓		
				✓	✓		
		Daily data	Log of patrol	✓	✓		
			Record of water change	✓	✓		
			Testing data	✓	✓		
		Loss of data	Loss data query	✓	✓		
	Sampled data	Sampling record	✓	✓			
		Analysis of pond sampling indicators		✓			
		Early warning information of pond sampling indicators		✓			
	Institutional users	Organizational setup		✓	✓	Supports adding and deleting user fields, role department logic, etc.	
		Department settings		✓	✓		
		Character settings		✓	✓		
		User settings		✓	✓		

Application categories	First level function	Secondary function	Level three function	Version				
				Free	Standard	Enterprise	Customized	
Aquaculture management system	Pond of base	Farm settings			✓	✓	Supports adding and deleting fields, modifying data logic, and adding functional modules	
		Pond settings			✓	✓		
		Transportation management			✓	✓		
	Basic information	Supplier management			✓	✓		
		Customer management			✓	✓		
		Transportation management			✓	✓		
	Farming management	Farming cycle			✓	✓		
		Species			✓	✓		
		Fry				✓		✓
						✓		✓
						✓		✓
		Feeds				✓		✓
						✓		✓
						✓		✓
						✓		✓
						✓		✓
						✓		✓
						✓		✓
		Medicine				✓		✓
						✓		✓
					✓	✓		
					✓	✓		
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					✓	✓		
				✓	✓			
				✓	✓			
				✓	✓			
Consumables				✓	✓			
				✓	✓			
				✓	✓			
				✓	✓			



Application categories	First level function	Secondary function	Level three function	Version				
				Free	Standard	Enterprise	Customized	
Aquaculture management system						✓	Supports adding and deleting fields, modifying data logic, and adding functional modules	
						✓		
						✓		
	Production management	Approval of moving operations						✓
		Approval of seedling						✓
		Stock sampling and inventory			✓			✓
		Test management			✓			✓
		Early warning value						✓
	Sales management	Pre-sale application						✓
		Sales confirmation						✓
		Harvest record management			✓			✓
		Pond clear management			✓			✓
	Expense management	Cost item maintenance						✓
		Expense matter maintenance						✓
		Customer initial management						✓
		Customer receivable management						✓
		Customer payment settlement						✓
		Expense cost entry						✓
	System settings	Approval settings	Area feeding					✓
		Permission settings	Feed inventory					✓
	Program pre-planning	Feed plan	Medicine information					✓
		Farming plan	Medicine plan					✓
		Plan making	Medicine purchase					✓
		Plan execution	Medicine storage					✓
	A picture	Desktop of group business unit president	Nursery/cultivation: annual business goals, stocking overview, stocking overview, cost overview, sales overview, harvest overview, unit profit plan and actual ratio, indicator overview					✓
		Subsidiary middle management desktop	Nursery/cultivation (month/day): harvest status of each batch, number of days and input costs for each batch of nursery, egg investment status of each batch, feed usage of each batch, daily feed feeding, feed on hand, animal care daily use, animal protection stock					✓
		Subsidiary middle management desktop	Weather, online equipment, video surveillance, indicator trends, market conditions, aerator overview, controller overview, alarm information, regional display		✓			✓

Application categories	First level function	Secondary function	Level three function	Version			
				Free	Standard	Enterprise	Customized
lot management platform	Home page overview		Weather, online equipment, video surveillance, indicator trends, market conditions, aerator overview, controller overview, alarm information, regional display		✓	✓	All data modules can be customized for data analysis and visual display.
	System management	Organizational management	Institutional sector		✓	✓	Supports adding and deleting user fields, role department logic, etc.
			Base management		✓	✓	
		User management		✓	✓		
		Authority management	Role management		✓	✓	
	Device management				✓	✓	Customize controller views, functions, etc.
	Production management	Unit management			✓	✓	Supports adding and deleting fields, modifying data logic, and adding functional modules
		Monitoring data	Threshold setting query		✓	✓	
			Monitoring data query		✓	✓	
			Device switch log		✓	✓	
	Operation and maintenance	My work order	Create a work order		✓	✓	
		Alarm center			✓	✓	
	Home page overview	Home page overview	Weather, online device status overview, map distribution, device usage statistics, market information, video display, surveillance video			✓	All data modules can be customized for data analysis and visual display.
	A picture	Control a picture	Aerator information overview, equipment online overview, equipment distribution map, switch log, alarm information			✓	
		Monitor a picture	Environmental conditions, detection indicators, equipment online overview, indicator trends, alarm information			✓	
		Video one picture	Video carousel, device distribution			✓	

# UYU SHOPPING CENTER



Uyu shopping center is a brand-new fishery e-commerce platform independently developed by Uyu (Guangzhou) Technology Co., LTD. It focuses on providing one-stop purchasing and sales solutions including collective purchasing, sales, finance and insurance for the production enterprises, agricultural materials distributors, farmers and other aquaculture subjects in the aquaculture industry chain.



# UYU CLOUD CONTROL

WECHAT APPLET

Uyu Cloud Control wechat mini program is a convenient Internet of Things management platform for aquaculture farms independently developed and designed by Uyu Company. It allows users to carry out daily management without downloading APP or logging in PC terminal.



# UYU GOOD CHOICE

WECHAT APPLET

Uyu good choice, focusing on the field of aquatic products, provides users with high-quality traceable aquatic food, agricultural food, professional-grade water product networking equipment procurement and fish price information and other quality services. Users can experience it by searching the Uyu wechat applet.



# PRODUCT

A set of water quality monitoring system can realize 24-hour real-time monitoring of dissolved oxygen, water temperature, ammonia nitrogen, pH, salinity, ORP and other data. The data is accurate and can be checked at any time by mobile phone APP. When the data is abnormal, the alarm messages can be timely sent to user and intelligent controller can be connected to automatically control the switch of aquaculture equipment. At the same time, it is equipped with CCTV cameras and underwater cameras to realize visual management of the fish pond.

## MONITORING SYSTEM

### STANDARD VERSION



### PRO VERSION



### MAX VERSION



## PRODUCT DETAILS



### PRO VERSION

- ⊙ Industrial design, low energy consumption chip, strong anti-interference ability, suitable for various weather conditions such as cold and high temperature
- ⊙ Support 4G/wifi/broadband and other multiple ways to upload data, can expand 5G
- ⊙ Support 485 data transmission, equipped with three sensor interfaces, strong scalability
- ⊙ Support the expansion of various sensors such as ammonia nitrogen, nitrite, salinity, ORP
- ⊙ Can be connected to water surface CCTV or underwater camera
- ⊙ The interface adopts aviation connector, which is securely fastened



### STANDARD VERSION

- ⊙ Industrial design, low energy consumption chip, strong anti-interference ability, suitable for various weather conditions such as cold and high temperature
- ⊙ Support 4G/wifi/ and other multiple ways to upload data, can expand 5G
- ⊙ With display function, real-time data viewing
- ⊙ The interface adopts aviation connector, which is securely fastened

# PARTS DETAILS



## Dissolved oxygen sensor

- ▶ The detection process does not consume oxygen to avoid false alarms
- ▶ Built-in water temperature data monitoring
- ▶ Standard 20m cable, extendable
- ▶ The stainless steel shell is suitable for seawater environment and is more durable
- ▶ The industry-leading fluorescence method is used to measure dissolved oxygen, and the error is less than or equal to 0.5mg/l
- ▶ Using optical principles, there is no chemical reaction in the detection process, no need to add electrolyte, easy maintenance

## pH sensor

- ▶ The measurement resolution reaches 0.01pH, and the measurement accuracy is <math><0.02\text{pH}</math>
- ▶ The electrode adopts flat design to reduce the damage rate of glass electrode
- ▶ Removable protective cover makes cleaning and maintenance easier
- ▶ Standard 18m cable, extendable



## ORP sensor

- ▶ The shell is made of PPS, corrosion resistance
- ▶ Measuring range: -1000.0~+1000.0mV
- ▶ Measurement accuracy: 0.2mV
- ▶ Resolution: 0.1mV



## Ammonia sensor

- ▶ High qualitative, strong anti-interference ability
- ▶ Fast response speed, T90 response time <math><20\text{S}</math>
- ▶ Measure the concentration of ammonium ions in water
- ▶ Measuring range: 0~2ppm
- ▶ Measurement accuracy:  $\pm 10\%$ fs



## Salinity sensor

- ▶ Conductivity and salinity dual function, one sensor, two sensing indicators
- ▶ Electrical conductivity measurement range: 0-70 mS/cm
- ▶ Salinity measurement accuracy: 5%F.S
- ▶ Conductivity measurement accuracy: 5%F.S
- ▶ Conductivity resolution: 0.01MS
- ▶ Salinity resolution: 0.01PPT



## Water surface surveillance camera

- ▶ 2 million high-definition pixels, extensive supervision and supervision, to see the whole picture of the fish pond
- ▶ With sound recording function, with infrared night vision function
- ▶ Built-in 32G memory card, can store high-definition video continuously for one week



## Underwater camera

- ▶ Stainless steel body, anti-corrosion
- ▶ Standard cable is 6 meters, can be customized
- ▶ 2 million full-color high-definition camera, with LED fill light, clear camera
- ▶ Network cable power supply/data transmission, no need for external power supply, low energy consumption and easy installation







### Intelligent spherical camera

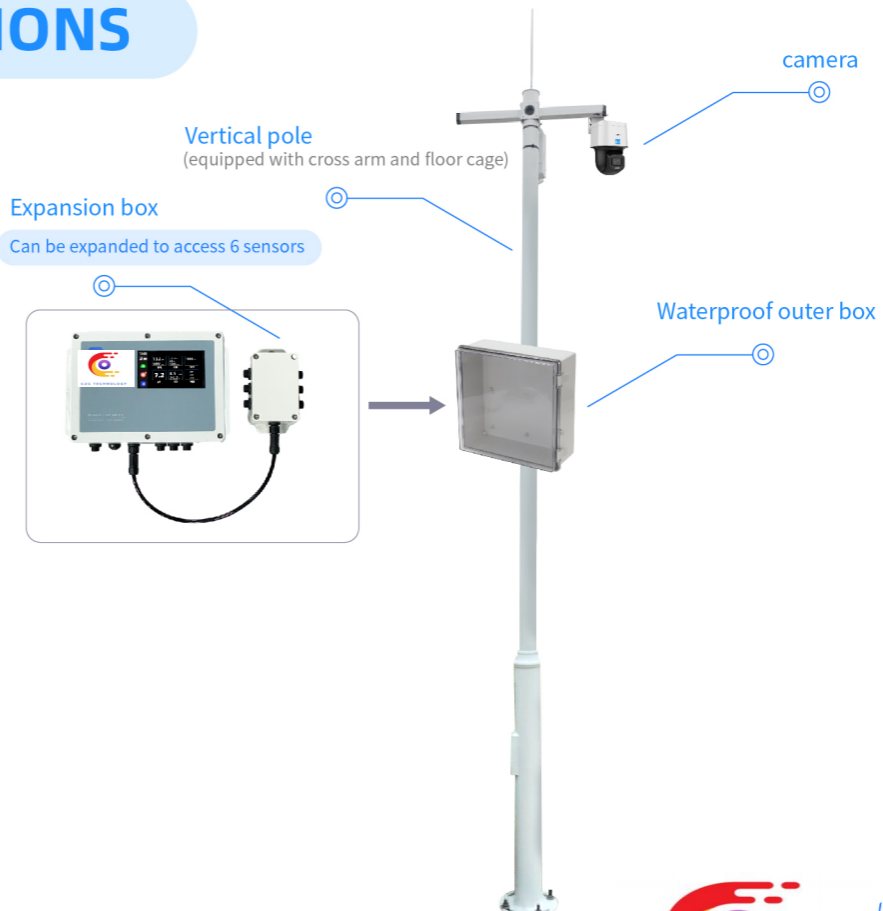
- ▶ Fourteen million pixels
- ▶ Maximum resolution: 2560\*1440@25fps(real-time images can be output at this resolution)
- ▶ Support backlight compensation, 3D digital noise reduction, adapt to different monitoring environment
- ▶ Support Fluorite platform and Hikon interconnection
- ▶ Support white light/infrared light, infrared light up to 30 meters, white light up to 30 meters
- ▶ A MicroSD card with a maximum storage capacity of 256 GB is supported
- ▶ Comply with IP66 dustproof and waterproof design



### Full color dual lens camera

- ▶ Full-color high-sensitivity sensor and F1.0 ultra-large aperture lens provide clearer video stream input for smart applications and comprehensively improve the accuracy of smart processing
- ▶ Supports dual-lens stitching, horizontal field of view 180°, aspect ratio 20:9, maximum resolution up to 3632 x1632 @25 fps
- ▶ Using deep learning hardware and algorithms, it supports cross-border detection, regional intrusion detection, area entry detection and area departure detection, and linked sound and light warnings
- ▶ Supports switching between normal monitoring, Smart event, popularity statistics, and people counting modes, and supports proportional reduction of the main stream video screen
- ▶ Supports backlight compensation, strong light suppression, 3D digital noise reduction, 120 dB wide dynamic range, adaptable to different monitoring environments
- ▶ 1 built-in microphone, 1 built-in speaker, supports two-way voice intercom
- ▶ Supports DC12V, 100 mA power output, recommended for pickup power supply
- ▶ Supports white light fill light, 2 fill lights, 2 alarm lights, the irradiation distance can reach up to 30m
- ▶ IP67 dust-proof and waterproof design, high reliability

## INSTRUCTIONS



#### Waterproof outer box

- ▶ Size: 330 \* 330 \* 130mm

#### Vertical pole

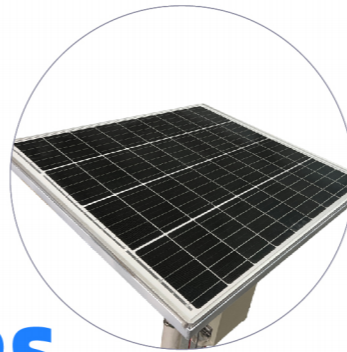
- ▶ Pole: 3.5m
- ▶ Pole: 6m

# OCEAN RANCHING SUPER-VISION TERMINAL



Uyu Ocean Ranch Supervision Terminal is a one-stop solution for maritime security supervision .That is specially designed for ocean ranches and integrates power supply, communication, collection, monitoring and management functions. It improves the level of intelligent and information-based management of deep-sea cage farming, ensures the safety of offshore farming, improves farming efficiency and production efficiency, and opens up a new path to build a "blue granary" using "green energy"

## PRODUCT PARAMETERS



### Solar photovoltaic panels

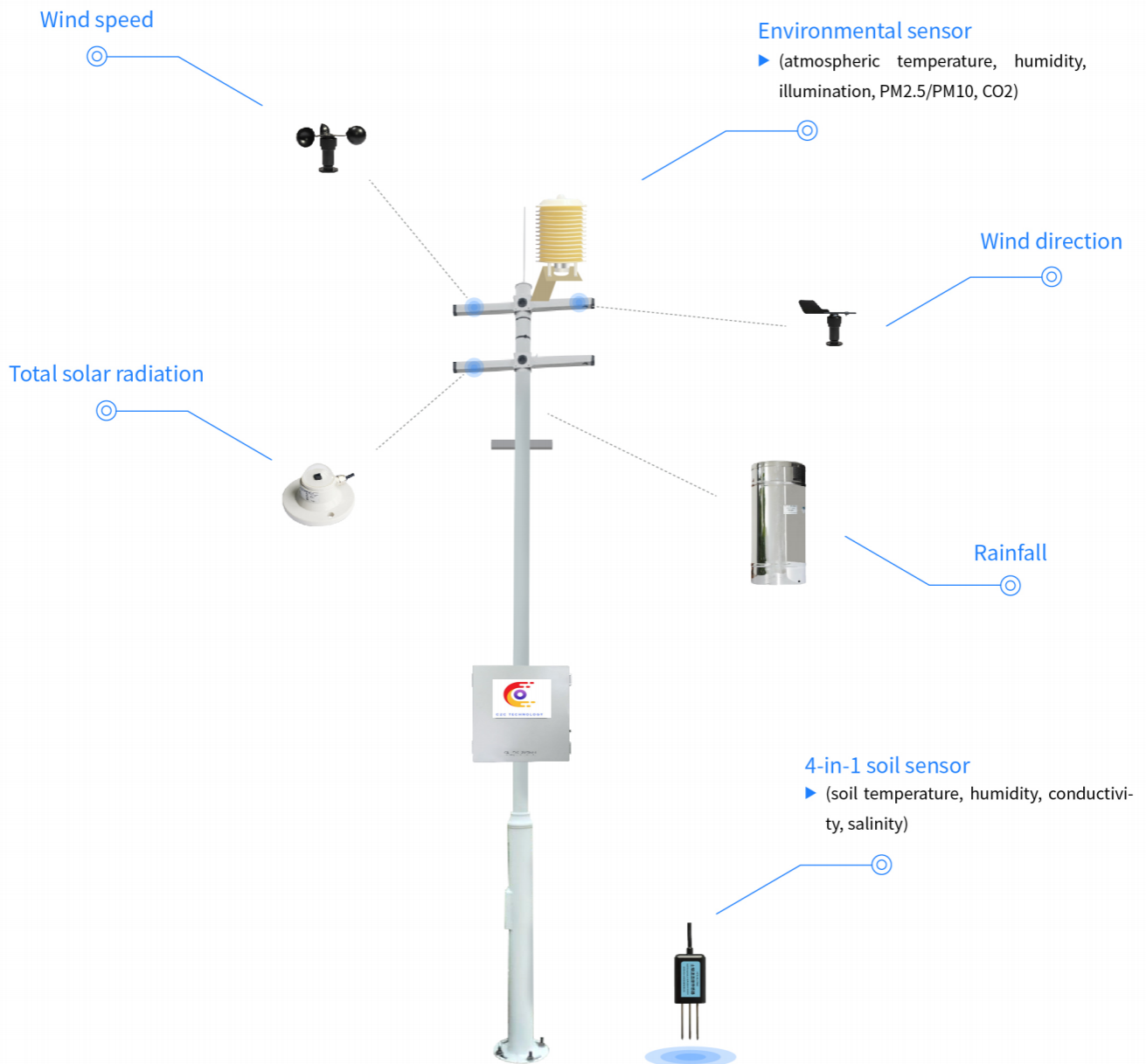
- ▶ Material category: Monocrystalline grade A
- ▶ Specifications:730\*670mm
- ▶ Peak power: 100W
- ▶ Working voltage: 18V
- ▶ Conversion efficiency: 21% (±1.5%)
- ▶ Battery capacity: 60Ah

### Camera

- ▶ Full-color high-sensitivity sensor and F1.0 ultra-large aperture lens provide clearer video stream input for smart applications and comprehensively improve the accuracy of smart phones
- ▶ Supports dual-lens stitching, horizontal field of view 180°, aspect ratio 20:9, maximum resolution up to 3632x1632 @25 fps
- ▶ Using deep learning hardware and algorithms, it supports cross-border detection, regional intrusion detection, area entry detection and area departure detection, and linked sound and light warnings
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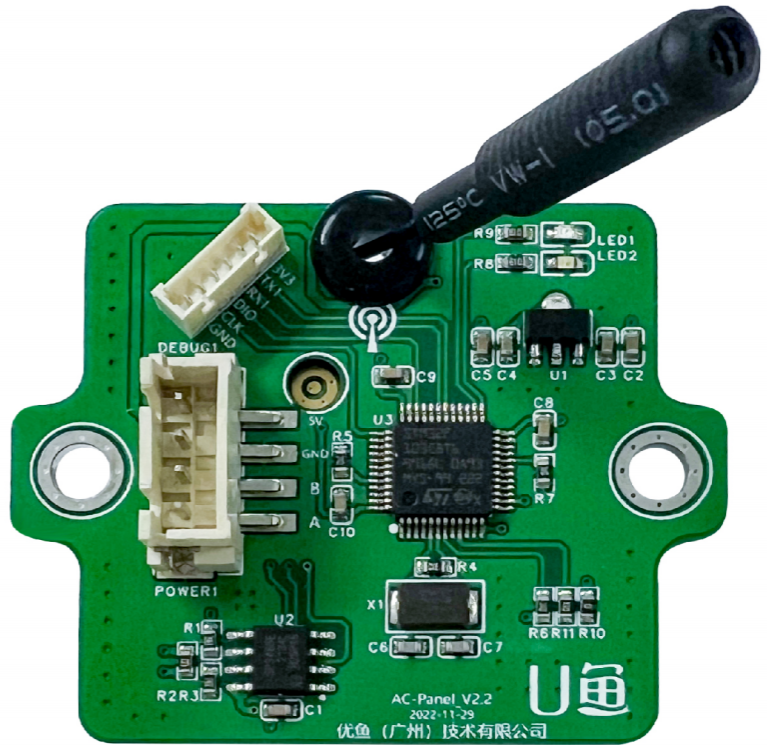


# ENVIRONMENTAL MONITORING



# IoT module

Uyu Internet of Things module, combined with enterprise customized development applets, provides aquaculture equipment manufacturers with rapid intelligent, standardized, and integrated digital upgrade services, making the development of intelligent aquaculture equipment easier.



## COMMUNICATIONS SYSTEM

Uyu self-organizing network communication system has a data transmission distance of up to 25km, provides a high-speed 30Mbps wireless transmission rate, supports point-to-point, point-to-many structures. it has strong penetration and diffraction capabilities, ultra-low power, and strong anti-interference ability



# Intelligent control cabinet

Integrated measurement and control solution specially designed for aquaculture

The Uyu intelligent control cabinet is an integrated measurement and control solution that integrates an intelligent and safe power system, an intelligent control system and an intelligent monitoring system. It is specially designed for the aquaculture industry.



## MAIN FUNCTION

- 1 Equipped with a 7-inch high-definition LCD touch screen to achieve efficient interactive operations, and the new U interface makes data clearly visible.
- 2 The multi-level security chip provides a stable and reliable working environment for the main control computer, which can meet the long-term stable operation at full load.
- 3 Supports standard communication protocol (Modbus) and private protocol (RS485) interfaces to facilitate users to control or access multiple devices.
- 4 With the intelligent circuit breaker, it can realize overload protection, short circuit protection, over-under voltage protection, over-under voltage recovery and automatic power-on closing and no-power opening functions.
- 5 Various data are interconnected with the platform to achieve local and remote information synchronization, and support timing, parameter or manual control functions.
- 6 Both the local and remote terminals support alarm functions such as data anomalies, operating failures, and remote disconnections.
- 7 Hierarchical authority user management, multiple types of data storage (historical data, fault data, operating data, operation records, etc.), supporting up to 100,000 pieces of data storage and exporting.

## CORE ADVANTAGES

01

### ELECTRICITY SAFETY

Intelligent early warning and protection ensure the safety of electricity consumption

02

### INTELLIGENT MANAGEMENT AND CONTROL

Implement remote hierarchical management and control of IoT devices

03

### MASS STORAGE

Supports up to 100,000 pieces of data storage and export



**More highlights**

- ▶ Monitor circuit safety 24 hours a day, accurately diagnose circuit faults, and improve maintenance efficiency.
- ▶ 0.5S level current and voltage acquisition accuracy
- ▶ More than 3 times the breaking speed, the breaking time is less than 150 microseconds
- ▶ Remote padlock ensures the safety of maintenance personnel
- ▶ 7-inch high-definition LCD touch screen, efficient interactive operation, clear readings
- ▶ 100,000 pieces of data are stored and exported, and analysis reports can be generated.
- ▶ Flexible adaptability, supporting standard communication protocol (Modbus) and private protocol (RS485) interfaces

**Client**

Uyu Smart Fishery Management Platform (APP/PC)

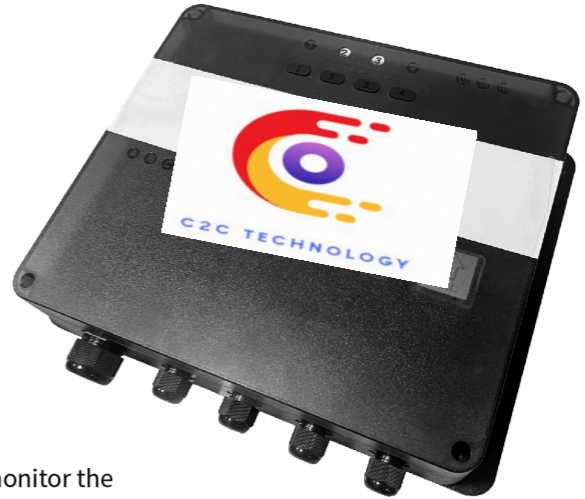
**Application scenarios**



# Intelligence controller

Mobile phone remote control for aquaculture equipment

It integrates the three major functions of intelligent control, intelligent alarm, and data monitoring, allowing the mobile phone to become a remote control for aquaculture equipment, which realizes remote control/scheduled start and stop of aquaculture equipment, intelligent alarm and response to power outage/phase loss/overload and other faults, and monitor the operating status of aquaculture equipment, current changes and other functions.



## Features



Mobile APP remote control



Set timing switches for multiple groups of equipment



Linked water quality monitoring automatic switch aerator



Power outage/overload/lack of equality and other abnormal alarms



Monitoring equipment operating current and voltage



Appearance outdoor waterproof design

## INTERNATIONAL VERSION

- ◎ Flexible control method: APP remote control, local manual control
- ◎ Provide 4 controlled ports, each port supports up to 5KW
- ◎ Provides 4 status alarms: power outage, offline, phase loss, and overload
- ◎ Alarm information is pushed and notified to users through phone voice, SMS, and APP
- ◎ Multiple sets of time switches can be set through the APP, or linked with water quality monitoring
- ◎ Automatic control equipment
- ◎ The operating current of each controlled port can be viewed through the APP
- ◎ Communication supports SIM card

# Uyu auto feeder

Accurate farming to reduce feed waste

The Uyu auto feeder is an intelligent feeder that uses wind power and the spray device can swing 90 degrees. The mobile APP can be used to remotely set the feeding speed, time and interval, and up to 8 sets of timing switches can be set; the feeding records can be updated to the server in real time.



## PARAMETERS

Jet angle	90°
Jet distance	22mm feeds distance 3-10 meters
Speed of feeds drop	up to 800KG/hour
Container capacity	150kg
Material of container	Stainless steel
Operating Voltage	Customized
8 sets of timing switches can be set	

## Features



The Jet device can swing  
Comes with feeds-empty  
shutdown protection



8 groups of time  
switches can be set  
Automatic feeding saves  
labor



The feeding speed, time and  
interval can be set.  
Feeding records can be  
viewed at any time



# Portable water quality meter

Easy to carry, test wherever you go

A portable water quality monitoring device with water-proof function, touch screen operation, and can measure the dissolved oxygen value, water temperature and pH value of water. The device has a built-in battery with a capacity of 2500MAh, which can last for more than 60 minutes of continuous operation. In addition, the device has a data storage function and can store 10,000 pieces of measurement data.



## ACCESSORY



DO sensor

+



pH sensor

+



Telescopic pole

## Features



LCD display, clear reading



Double-head design, multi-parameter measurement



Plug and play, easy to carry



Massive storage of 10,000 pieces of data



Continuous measurement for 60 minutes



Touch screen design

# Air suspension high-speed aerator

Scientific and technological achievements

The U-fish air suspension high-speed aerator adopts domestically independently developed air suspension blower technology, which has the characteristics of high efficiency, high energy saving, strong stability, no oil pollution, low noise, etc.; the built-in control module can realize functions such as remote switching and fault alarm.



## CORE TECHNOLOGY



Three-dimensional flow impeller design



air foil bearings



Motor air cooling, cooling technology



Impeller two-stage compression



Permanent magnet synchronous motor

## Core advantages

01

### LONG LIFE

Automotive grade foil gas bearings with a lifespan of 10-15 years

02

### ENERGY SAVING AND EFFICIENT

More than 10%-30% energy saving than traditional roots blower

03

### NOISE REDUCTION AND ENVIRONMENTAL PROTECTION

Compressed air is naturally oil-free, no filtering device is required, and the noise is less than 80dB

04

### SYSTEM STABILITY

Comes with surge protection, safe and does not shut down

05

### WORRY-FREE AFTER-SALE SERVICE

18 months replacement only, no repairs

06

### EASY TO MAINTAIN

Just replace the filter cotton

## NEW WATER SYSTEM SERIES

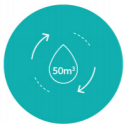
It is an oxygenating equipment with high efficiency, high safety performance, low noise, low energy consumption and intelligent control. One new water system is equivalent to four regular oxygenators.

## MAIN PARAMETER

Supply voltage	AC:200-230	Quantity of treated water	50-55m <sup>3</sup> / h
frequency	50HZ	Host size (mm)	diameter:600 high:2000
power	1000w		



## Features



A new water system can treat 55 cubic meters of water per hour



Equipment low noise, low energy consumption, machine power 1 kw



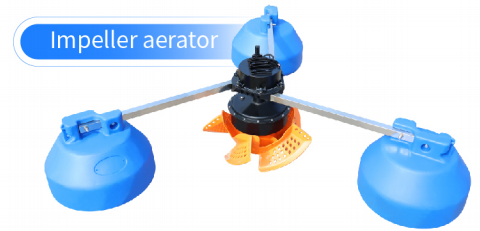
It links the water quality monitoring system and intelligent controller to realize mobile phone operation and data monitoring

### Case comparison: Take 4000 square meters of outdoor pond as an example

Number of equipment	A new water system	Four aerators
Equipment cost	13800-16800	1200 RMB/set, total 4x1200=4800 RMB
Energy consumption	1 kw	1.5kw/ set, 1.5x4 =6kw
Operating cost (monthly)	1kwx24 hours x30 days x0.6 yuan/degree =432 RMB	6kwx24 hours x30 days x0.6 RMB/kilowatt hour =2592 yuan
conclusion	High oxygen efficiency, 1 new water system is about equal to the efficiency of 4 aerators: low energy consumption, a lot of electricity can be saved every month, and the electricity saved in a year is enough to buy 2 sets of new water systems	Compared with the new water system for farming, the monthly additional electricity bill is paid :2592-432=2160 RMB One year need to pay extra electricity :2160x12=25920RMB

# INTELLIGENT VARIABLE FREQUENCY AERATOR

The intelligent variable frequency aerator is a fish pond oxygenation IoT device designed with a permanent magnet motor and equipped with mobile phone remote switch, multi-speed speed regulation, automatic fault alarm and other functions. Built-in control module, no need to purchase additional controller. There are a variety of impeller and waterwheel models to choose.



## PRODUCT PARAMETERS

	Power	Voltage	Oxygenating cap	Power	Load water surface (666 square meters)
Impeller aerator	1.5	220/380	≥3.0	≥1.5	3~4
	2.2	380	≥3.4	≥1.5	4~5
	3.0	380	≥3.4	≥1.5	5~6
Paddle-wheel aerator	0.75	380	≥2.2	≥1.5	1~4
	1.5	380	≥2.3	≥1.5	4~5
	2.2	380	≥3.2	≥1.5	5~7

Case comparison	Use of the product	One variable frequency aerator	One other traditional aerator
	Operating voltage (volts))	380	380
	Actual operating power (kW)	1.0-1.1	1.5
	Running time per day (hours)	24	
	Save electricity (kWh) every day	9.6	
	Electricity saved per month (kWh)	288	
	Electricity cost per kilowatt hour (RMB)	0.63	
	Monthly electricity bill savings (RMB)	180	
	Using an intelligent variable frequency aerator (1.5KW/380V impeller aerator), the actual oxygenation capacity reaches 2.4-2.55kg/hr. Compared with other traditional aerators, the electricity bill can be saved by about 2000-2200 RMB a year.		

## Features



No controller required  
Can realize remote control, automatic alarm current, voltage, speed information remote viewing



Multi-speed speed adjustment  
Meet different farming needs



Permanent magnet motor  
High operating efficiency, saving 30% of electricity



Waterproof and anti-corrosion  
Full body anti-corrosion and waterproof coating design



Maintenance free  
No need to add lubricating oil to avoid water pollution

# Case01

UYU-CHINA

## East Island "863" Base

East Island "863" base is located in East Island, Zhanjiang City, Guangdong Province, covering an area of about 300 acres, with more than 100 ponds. The base has a total investment of 100 million RMB. It was established on the basis of the former Guangdong Hengxing Aquatic Seedling Base.



## PROJECT ACHIEVEMENT

- ✓ The base uses the Uyu intelligent equipment and the Uyu intelligent fishery management platform to monitor water quality , conduct regular oxygenation and feeding.
- ✓ The monitoring videos of more than 100 ponds were centralized to the monitoring center, and the front-end production personnel carried out farming operations according to the indicators.
- ✓ The financial personnel shall calculate the feed allocation and production cost according to the production materials.
- ✓ Docking with processing plants, deep processing into semi-finished products, directly transporting catering enterprises, and truly reaching traceable products.



# Case02

UYU-CHINA

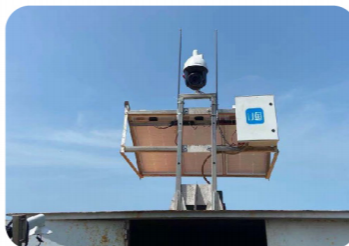
## Zhanyu Deep-Sea Cage Project

Zhanyu deep-sea cage project is a large-scale government-oriented agricultural project led by Zhanjiang Municipal Party Committee and government. Zhanjiang has a long coastline and abundant seafood. However, with the overfishing of marine products, the resources are increasingly scarce, and seafood supply is increasingly dependent on mariculture. Currently, cage culture is the main way of marine fish culture in Zhanjiang City, but the shallow water cage culture mode has a low technical content. The traditional cage culture mode mainly adopts wooden frame structure, which has many disadvantages, such as poor resistance to wind and waves, short service life, large limitation of aquaculture area, easy to cause self-pollution and environmental pollution.



## PROJECT ACHIEVEMENT

- ✓ According to the conditions of deep-sea cage culture and the spatial layout elements of deep-sea cage culture, such as seedlings, farming, processing, science and technology, circulation, trade, feed and other industrial clusters, determine the spatial layout of deep-sea cage culture advantage area industrial park of “one core, two wings, four centers, three ports, twelve areas”.
- ✓ The base uses Uyu intelligent equipment and Uyu intelligent fishery management platform to conduct real-time water quality monitoring and regular feeding of the operating cages;
- ✓ Financial according to the production materials, the personnel will pay for the feed and calculate the production cost... The real realization of digital breeding, the whole process can be controlled and controlled, and the ecological, informatization, sustainable and healthy development can be realized.
- ✓ All cage monitoring videos are centralized to the monitoring center, and front-end production personnel conduct breeding operations according to the indicators;



# Case03

UYU-CHINA

## Guangzhou Panyu District agricultural Technology Extension Service station

The Agricultural Technology Extension Service Station of Panyu District, Guangzhou is the public welfare service unit of Panyu, where the first provincial agricultural mechanization demonstration base of Guangdong Province is built. Digital agricultural demonstration project solution introduces a big data basic support system composed of the Internet of Things, sensors, intelligent devices, etc., and realizes real-time and dynamic visualization of data acquisition through a unified portal. Providing the paradigm of digital service agricultural production plays a leading, radiation and demonstration effect in the deep integration of information technology and agricultural production process, and promotes the transformation and upgrading of traditional agricultural production.



## PROJECT ACHIEVEMENT

### ✓ Internet of Things and big data platform services

New generation information technologies such as the Internet of Things, remote sensing, 5G and AI will be applied to improve demonstration management through data collection, governance and thematic analysis. The content of construction includes the center display platform, real-time environmental data, real-time video, and results transformation.



### ✓ Set up aquaculture cages

Intensive breeding, accurate feeding, reduce the waste of feed, save production costs and improve profits, increase the income of breeding farms, improve the confidence and enthusiasm of breeding staff.



✓ Intelligent controller, intelligent water quality monitoring, intelligent feeding machine and other UYU Internet of Things farming equipment are introduced and installed to automatically complete water quality and meteorological monitoring, feed feeding, accident alarm and on-site video picture collection.



C2C TECHNOLOGY

## Zhongshan Modern Agricultural Industrial Park

In recent years, Zhongshan Tanzhou Town has accelerated the construction and development of digital agriculture, highlighting the leadership of scientific and technological innovation. In 2022, Tanzhou Town successfully applied for the Guangdong Province "One Village, One Town One Industry" provincial-level aquaculture professional town, Zhongshan City Modern Agricultural Industrial Park; Uyu has carried out digital transformation of fish ponds at its four bases covering an area of 100 acres.



## PROJECT ACHIEVEMENT

- ✓ Visual management: Implement and install 14 cameras with wireless WIFI coverage to meet remote visual management requirements;
- ✓ Water quality and control linkage: Install a water quality monitoring system and install and use Uyu energy-saving aerators to link water quality changes; each unit can save about 250 RMB in electricity bills per month, which is equivalent to saving about 25,000 RMB per month for the entire fish pond. It will be 300,000 RMB per year;
- ✓ Intelligent feeding: Equipped with an intelligent feeding machine, it can feed the fish pond regularly and quantitatively. It not only distributes the feed evenly, but also reduces debris and waste, thereby saving feed and reducing labor costs;
- ✓ Intelligent control: Install intelligent controllers to realize the interconnection between breeding equipment and the cloud, freeing the hands of breeding workers, remotely switching equipment, and also realizing alarms for circuit failures such as power outages/overloads to avoid unnecessary losses caused by accidents.
- ✓ Data platform management: Create a digital cloud platform for breeding. Use your mobile phone or computer to log in to the U-fish smart fishery platform to learn about aquatic growth trends, fish pond water quality indicators, pests and diseases, etc., and realize unmanned intelligent control and restoration of fish ponds. It can enter, check and analyze breeding data, and can also automatically generate reports, saving time, effort and error-free.







<https://aquasmart.c2csingapore.com>