



+86 186 6170 5879



sales@relong-tech.com



www.relong-tech.com



Room 701, Building 2, No. 222 Shenzhen Road,
Laoshan District, Qingdao, Shandong Province, China



Series Brochure

AMPHIBIOUS
EQUIPMENT

CLEANING
BOAT

ONE-STOP
SOLUTION SUPPLIER
FOR DREDGING

WATER
CLEANING
ROBOT

GOLD MINING
EQUIPMENT

RELONG-TECH TRUCK
& FLANGE CRANE

CLEANING BOAT

CATALOG BROCHURE

ABOUT RELONG



“

Relong Technology Co., Ltd. is located in Qingdao City, Shandong Province. It is a company dedicated to intelligent robots, ship design, water transportation equipments, marine water quality and ecological environment testing, salvage services; industrial automatic control system devices, radar and supporting equipments, communication equipments, which is a high-tech enterprise integrating sales and artificial intelligence software development, including consulting, design, production, installation, and operation management.

”



High-tech
machinery



Partners from
universities and
research institutes



Products are sold
to more than 80
countries

Relong has built cooperation with colleges and scientific research institutes like the Ocean University of China, Jiangsu Ship Design Institute and Shandong University. And Relong has numerous research and development platforms including Provincial-Level Industrial Design Center, Provincial-Level "Enterprise & Technology" Development Center, Municipal Engineering Research Center And Engineering Laboratory. Relong has a number of independent intellectual property rights, including 33 National Patents, 2 Scientific And Technological Achievements.

Now Relong products have been sold to more than 80 countries and regions. Based on China Market and expanding International Market, Relong is striving for building the global brand in the field of water environment protection machinery.

CERTIFICATE



MOWING BOAT AQUATIC WEED HARVESTER

Relong aquatic weed harvesters are mainly used to remove aquatic plants and floating in reservoirs,rivers lakes and seashores.

The harvesters are easy operation, high efficiency and stable performance. One operator can complete the whole processes of collection,transmission, drainage, storage and discharge just by controlling the buttons and switches on the control desk.

VARIOUS MODELS

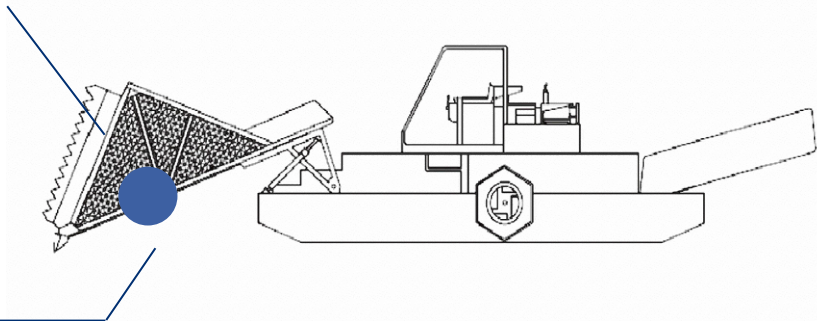
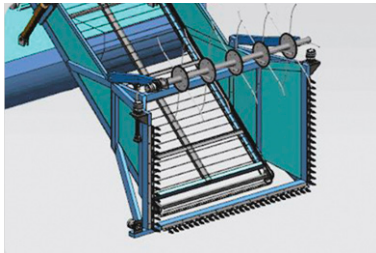
MODEL	HULL SIZE (L*W*H)M	CUTTING & COLLECTION DEPTH	FULL & EMPTY DRAFT	HULL MATERIAL
RL-AWH700	4.3x1.9x0.9	1.2	0.2/0.6	MARINE STEEL / STAINLESS STEEL / ALUMINUM ALLOY (OPTIONAL)
RL-AWH900	5x3x1	1.5	0.5/0.7	
RL-AWH1300	7.5x3x1.1	1.5	0.5/0.7	
RL-AWH1600	8.6x3.4x1.1	1.5	0.5/0.7	
RL-AWH2100	11.6x1.8x1.5	1.8	0.5/1.1	

Above specs for reference only,customized design is avaiable.



| RL-AWH700

AQUATIC WEED HARVESTER & TRASH SKIMMER SPECIFICATION

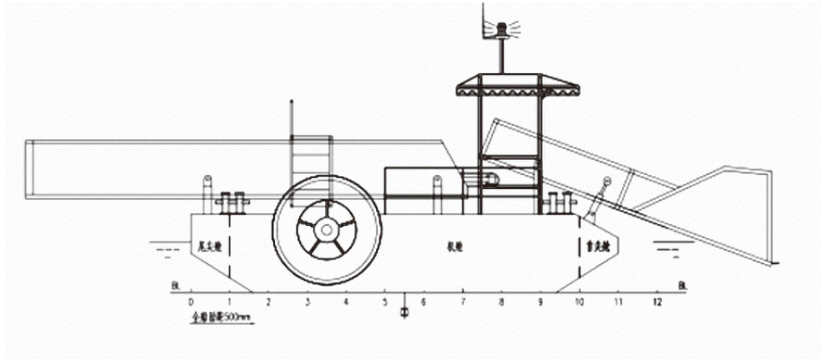


OVERALL SIZE (L*W*H)M	7.3*4.2*2.7
CUTTING W/D(M)	1.5/1.2
UNLOADING HEIGHT(M)	1.8
DISCHARGE TIME(S)	60-180
DRAFT EMPTY(M)	0.2
FASTENINGS	Adjustable Belt Tenioners
LOADING CAPACITY (M³)	2.8
MAIN ENGINE	Weichai/Yanmar/Cummins (optional)

Above specs for reference only,customized design is available.

| RL-AWH900

AQUATIC WEED HARVESTER & TRASH SKIMMER SPECIFICATION



Aquatic Weed Harvesters offer an environmentally sound method of controlling excessive aquatic plant growth and nuisance vegetation in waterways of all sizes.

OVERALL SIZE (L*W*H)M	10.3*2.4*2.8	DRAFT EMPTY(M)	0.5
CUTTING W/D(M)	2/1.5	FASTENINGS	Adjustable Belt Tensioners
UNLOADING HEIGHT(M)	2	LOADING CAPACITY (M³)	5
DISCHARGE TIME(S)	60-180	MAIN ENGINE	Weichai

Above specs for reference only,customized design is available.

| RL-AWH1300

AQUATIC WEED HARVESTER & TRASH SKIMMER SPECIFICATION



OVERALL SIZE (L*W*H)M	13.8*4.2*2.9	DRAFT EMPTY(M)	0.5
CUTTING W/D(M)	2.5/1.5	FASTENINGS	Adjustable Belt Tensioners
UNLOADING HEIGHT(M)	2.5	LOADING CAPACITY (M³)	9
DISCHARGE TIME(S)	60-180	MAIN ENGINE	Weichai

Above specs for reference only,customized design is available.



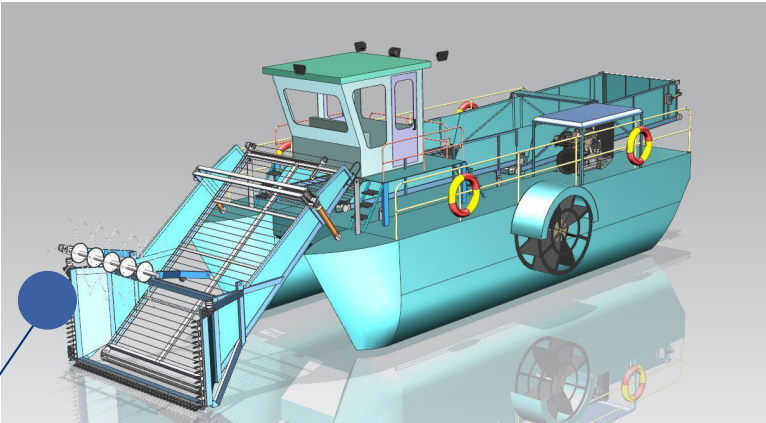
| RL-AWH1600

AQUATIC WEED HARVESTER & TRASH SKIMMER SPECIFICATION



The large aquatic weed harevster enteromorpha salvage collection device is a customized and new type device for "Ocean University of China".

We upgrade technology and remould the "Haizhuangyuan" sea enteromorpha comprehensive disposition platform of"Ocean University of china",change the suction pump type of self-salvaging device to crawler-type, which improves the salvaging efficiency obviously.



OVERALL SIZE (L*W*H)M	16*5.2*4.2	DRAFT EMPTY(M)	0.5
CUTTING W/D(M)	2.5/1.5	FASTENINGS	Adjustable Belt Tensioners
UNLOADING HEIGHT(M)	2.5	LOADING CAPACITY (M³)	15
DISCHARGE TIME(S)	60-180	MAIN ENGINE	Weichai

Above specs for reference only,customized design is available.

ENTEROMORPHA AUTOMATIC COLLECTION SHIP



MAIN CHARACTERISTICS

STEP1		STEP2		STEP3	
Enteromorpha gathers at the front collection port of the salvage ship, and the chain conveyor belt salvages the gathered Enteromorpha onto the vessel, which is then elevated by a secondary conveyor belt to the height required in the working space of the filter press dewatering unit for flattening and homogenization.		Enteromorpha is transported through the filter belt moisture, firstly gravity filtration of moisture, after passing through the wedge-shaped area, pre-pressure dewatering, and finally into the press area, squeezed by the pressure rollers.		Enteromorpha falls from the outlet to the horizontally arranged conveyor belt, and after passing through the fully automatic bundling and laminating, the packing is completed and shipped out of the warehouse, which is convenient for transportation and subsequent development of multiple purposes.	
OVERALL DIMENSIONS	22m*4.92m*8.2m	SAILING SPEED	4kn		
CUTTING WIDTH	4.0m	WEIGHT	65t		
CUTTING DEPTH	1.5m	PROPELLING METHOD	Propeller/paddle wheel		
DRAFT	0.92m	SAILING AREA	Restrictions on operation in coastal navigation areas		

Above specs for reference only,customized design is available.

AQUATIC WEED HARVESTER GALLERY



AMPHIBIOUS WEED HARVESTER

Relong amphibious harvester adopts the design of buoyancy tank and crawler, which can walk on land and work in water. It is equipped with replaceable working units such as weed bucket,T-type cutter, collecting rake and collecting fork, which can complete the operation like clean riverway, harvesting aquatic weed, and garbage cleaning etc.

RL-AMH1850



Hull materials are made of high quality, corrosion resistant aluminum alloy, the deck is welded to skid resistance, coated with wear resistant paint, and meets the size requirements of the inland waterway Design code.

RL-AMH5700



AMH5700 amphibious harvester is quipped with the crawler pontoon, which can meet the working requirements of multi-waterway, such as deep water, shallow water, swamp area, etc. It has greater advantages in terms of work scope and work efficiency.

MODELS

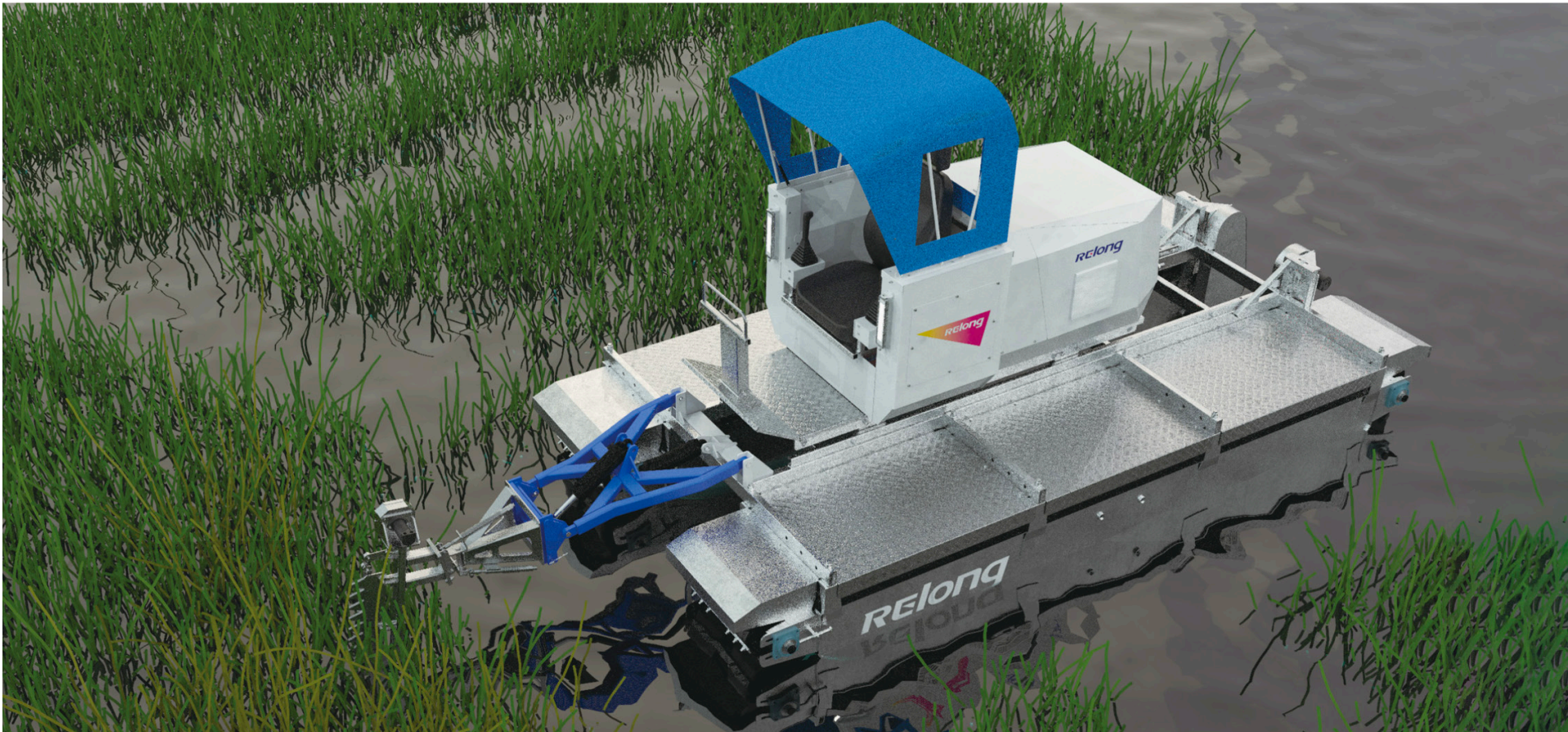
MODEL	LENGTH(HULL)	HEIGHT(HULL)	ENGINE POWER
RL-AMH1850	4.98M	2.1M	18.5-35kw
RL-AMH5700	6M	0.8M	57kw

Above specs for reference only,customized design is available.

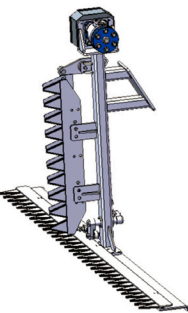


| RL-AMH1850

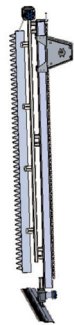
AMPHIBIOUS HARVESTER & SPECIFICATION



T CUTTER-1



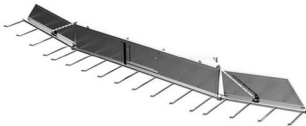
T CUTTER-2



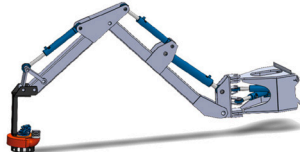
CUTTER RL20



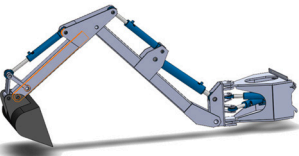
RAKE



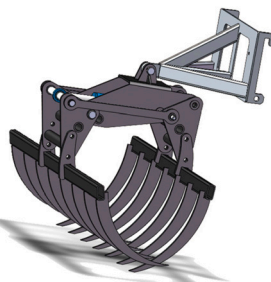
PUMP



DIGGING BUCKET



GRIP RAKE-1

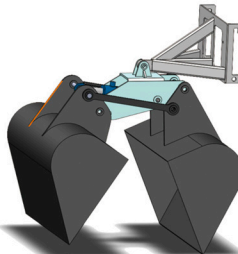


GRIP RAKE-2



ATTACHMENTS
FOR
REPLACEMENT

GRIP BUCKET



WEIGHT	About 2500kg	ENGINE MODEL	Yanmar
EMISSION CLASS	Stage III / EU Satge V/ Tier 4	ENGINE POWER	18.5kw-35kw
COOLING SYSTEM	Water Cooled	DIESEL TANK	35L
DRIVING SPEED	0-100m/min	FRONT LIFT	250kg

Above specs for reference only,customized design is available.

| RL-AMH5700

AMPHIBIOUS HARVESTER & SPECIFICATION



WEIGHT	8900kg	LOADING CAPACITY	5.5m³/2750kg
PONTOONS	Optional	DRAFT	0.6m
BATTERY	12v	DRIVING	Fully hydraulic, stepless speed control
COOLING WAY	Water cooled	PRODUCTION	11500m

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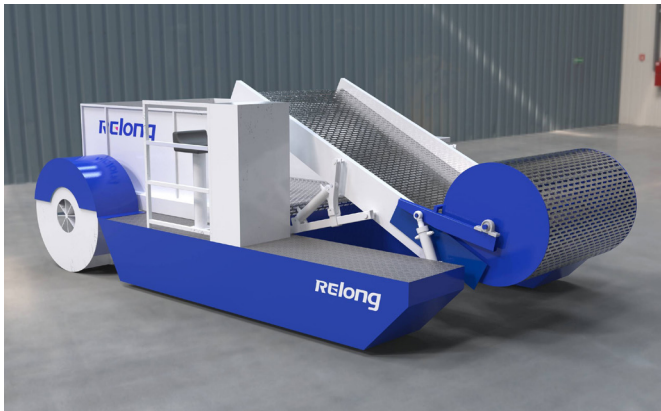
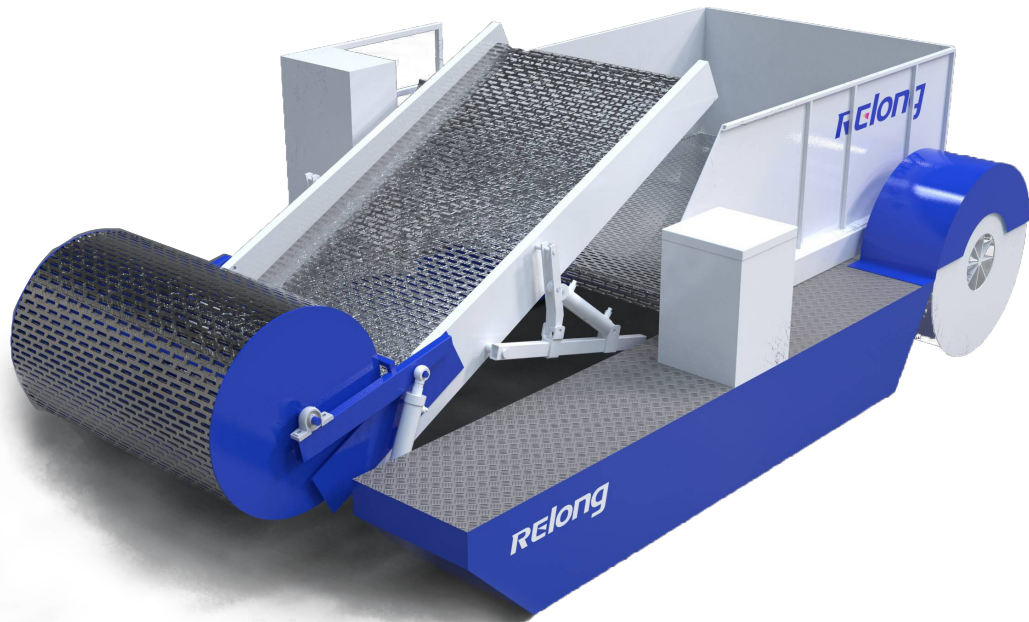


AMPHIBIOUS WEED HARVESTER GALLERY



| RL-AWH1860

AQUATIC WEED ROOTS HARVESTER SPECIFICATION



TOTAL DEPTH	2.5m	FULL LOADED DRAFT	0.5m
EMPTY LOADED DRAFT	0.4m	COLLECTING WIDTH	4m
DISPLACEMENT	18.2t	LOADING CAPACITY	3t
DESIGNED SPEED	10km/h	DRIVING	Paddle Wheel

Above specs for reference only,customized design is available.

| RL-FWH160

FOAM WEED HARVESTER SPECIFICATION



MAIN FEATURES

The Underwater Mower is a special mower for shrimps and crabs. The use of mechanical automation will cut all the various water plants in the pond about 1 meter below the water surface and salvage them ashore, which is a good way to improve the breeding environment of shrimps and crabs.

The whole machine includes a foam hull, a propeller, a scissor part, and a conveying part; the main engine is operated, and the propeller pushes the foam hull forward to cut the grass under the water at one time and salvage it ashore.



WEED CUTTER SIZE (L*W)M	2.4*1.6	HULL SIZE (L*W*H) M	4.8*2*0.2
HORIZONTAL CUTTER LENGTH (M)	1.6	VERTICAL CUTTER LENGTH (M)	0.6
CUTTING DEPTH	0.3-0.5	WORKING TIME (HOUR)	5
BATTERY	20A,48V	BATTERY POWER (W)	650

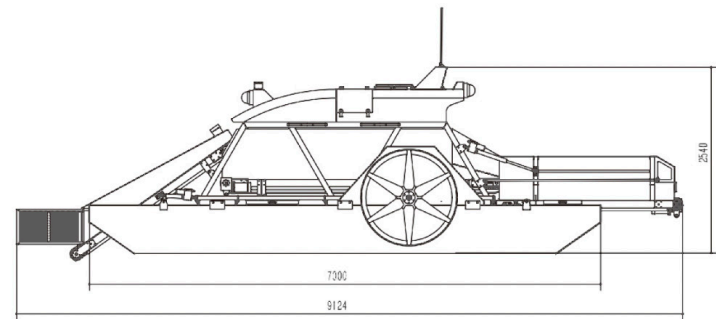
Above specs for reference only,customized design is available.

UNMANNED WATER SURFACE CLEANING SHIP

INTELLIGENT EQUIPMENT

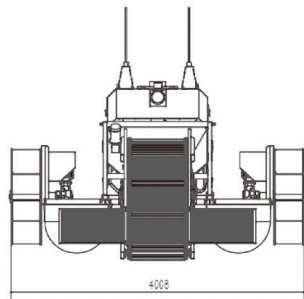


The unmanned cleaning ship has the advantages of autonomous navigation, high automation, simple and reliable operation, thorough collection, high efficiency, and wide salvage water. At the same time, the automatic navigation and automatic collection functions realize the separation of man and ship, eliminate the potential dangers caused by manual collection, and save a lot of manpower, material and financial resources. It is of great significance to promote the development of productivity. At the same time staff can be through intelligent control terminals for unmanned remote cleaning boat driving and remote control, lower cost, safer and more efficient.



Endurance	8h
Engine Power	12kw
Control Mode	remote control
Garbage Volume Capacity	2.7 cube meters
Collection Width	2.7m
Collection Depth	0.3m

Overall Length	9m
Overall width	4m
Overall height	4m
Draft	0.35m
Material	Aluminum
Navigation speed	4Km/h
Water Discharge	2.2t
Navigation Area	Inland-water, inshore
Propulsion System	Double- paddle wheel motor propulsion



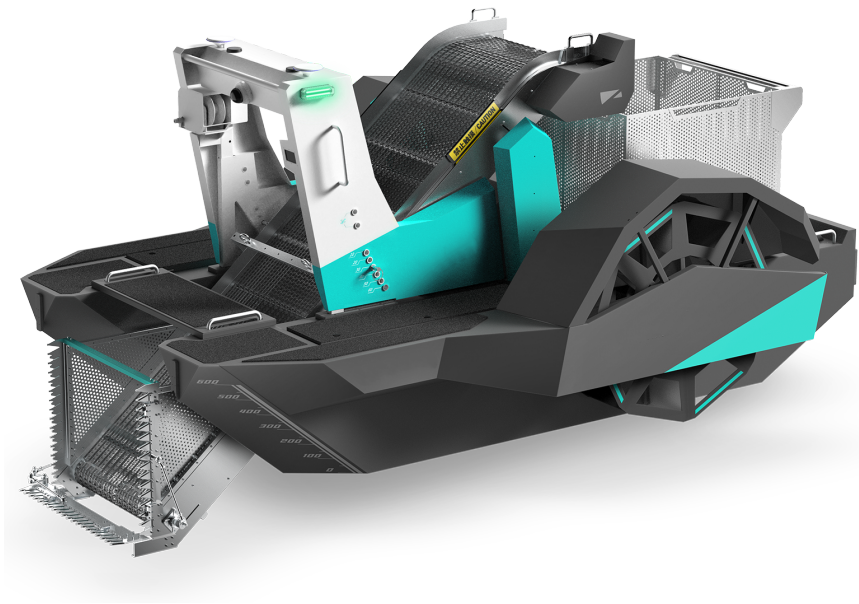
UNMANNED MOWING BOAT



Unmanned mowing boat is an intelligent maintenance robot for ecological waters. It is designed for large and medium-sized ecological waters. It has functions such as water grass harvesting, water surface cleaning, water quality monitoring, and autonomous return charging. It is suitable for ecological water systems with submerged plants, including natural lakes, urban parks, urban rivers and tourist attractions. As well as high-end residential waters, science and technology parks, golf courses and other commercial waters. It can achieve 24-hour standby, all-weather management and control, and promote intelligent maintenance of water ecology.



PRODUCT HIGHLIGHTS



01

Unmanned driving
24/7 response, automatic operation, one-button start, the whole process without worry.

02

Adjustable harvesting depth
The harvesting depth is 10cm ~ 60cm, which can be flexibly adjusted to meet the demand of water grass in low season.

03

Functional integration
Harvesting water and grass at the same time, both water surface clear drift and water quality monitoring functions, multi-purpose boat.

04

Horizontal and vertical cutters
The horizontal and vertical cutters are set to flexibly harvest high-density and complex aquatic plants.

05

Paddle wheel propulsion
The paddle wheel propulsion system is adopted to avoid water and grass entanglement and ensure smooth operation.

06

Garbage weighing
Real-time statistics of harvest weight, convenient transportation scheduling, harvest prediction, and intelligent management.

07

Automatic lifting and lowering of garbage baskets
The garbage baskets can be automatically lifted and lowered to adapt to docks of different heights and materials, reducing the difficulty of garbage dumping.

Hull size	4000*2500*1930mm	Hull material	High strength aluminum alloy
Hull height	1100kg(unloaded)	Rated load	150kg
Draft depth	0.4m	Control mode	4g-autopilot/2.4g-remote control
Maximum speed	1.5m/s	Battery life	8 hours

UNMANNED TRASH CLEAN VESSEL



Unmanned cleaning boat is a surface service robot that integrates surface garbage cleaning, water quality detection, intelligent inspection and other functions. It can collect 100kg of garbage. The main application scenarios are urban inland rivers, reservoirs, landscape lakes and other waters.

FEATURES

- ✓ Garbage cleaning
- ✓ Dry and wet separation
- ✓ Intelligent route planning
- ✓ Full load of garbage and return
- ✓ Water quality detection



PRODUCT HIGHLIGHTS

01

Dry and wet separation of water surface garbage

Through the garbage collection module, the garbage floating on the water can be collected into the garbage basket inside the hull to filter out the water.

02

0.8m extended

For cement or stone rivers/lake banks, the sweeping module along the shore can be used to clean up the rubbish near the shore.

03

High-precision positioning

Based on RTK's high-precision positioning, unmanned ships can achieve centimeter-level water surface positioning, which can better cope with complex water scenes.

04

Autonomous and precise obstacle avoidance

Relying on the mounted millimeter-wave radar, the unmanned ship can accurately avoid obstacles, and can perform scene modeling of operating waters.

05

Multiple cleaning modes

For different water scenarios, unmanned ships have multiple cleaning modes such as area cleaning and edge cleaning. The mobile /pad APP supports independent selection and combination of cleaning modes.

06

Hand/Auto mode switch

The user can either use the remote control that comes with the ship to control the hull unmanned ship, or remotely operate the mobile phone APP, and the two modes can be switched.

07

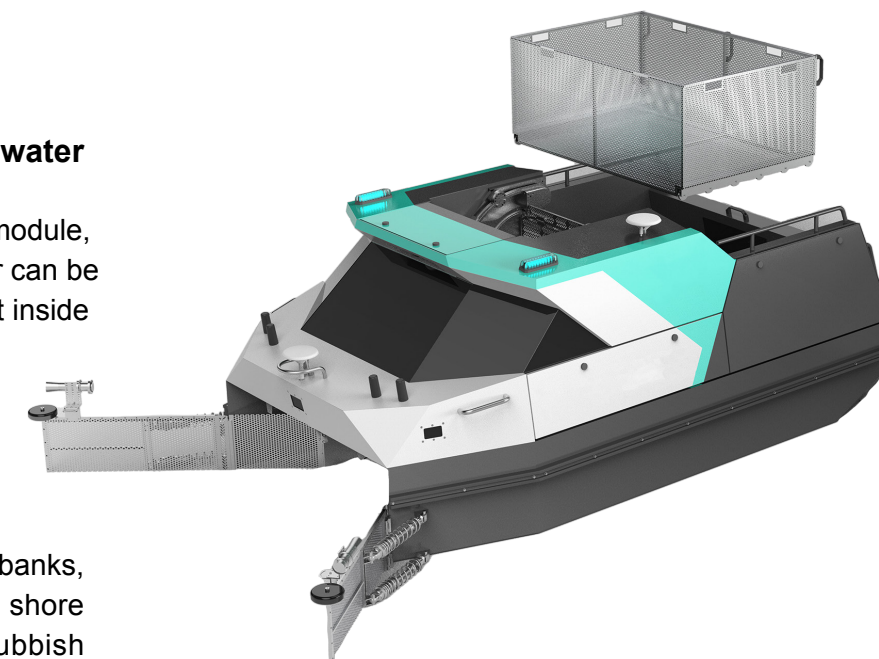
Autonomous garbage identification

Automatic garbage identification function based on visual recognition can achieve density cleaning and intelligent maintenance of water area cleaning.

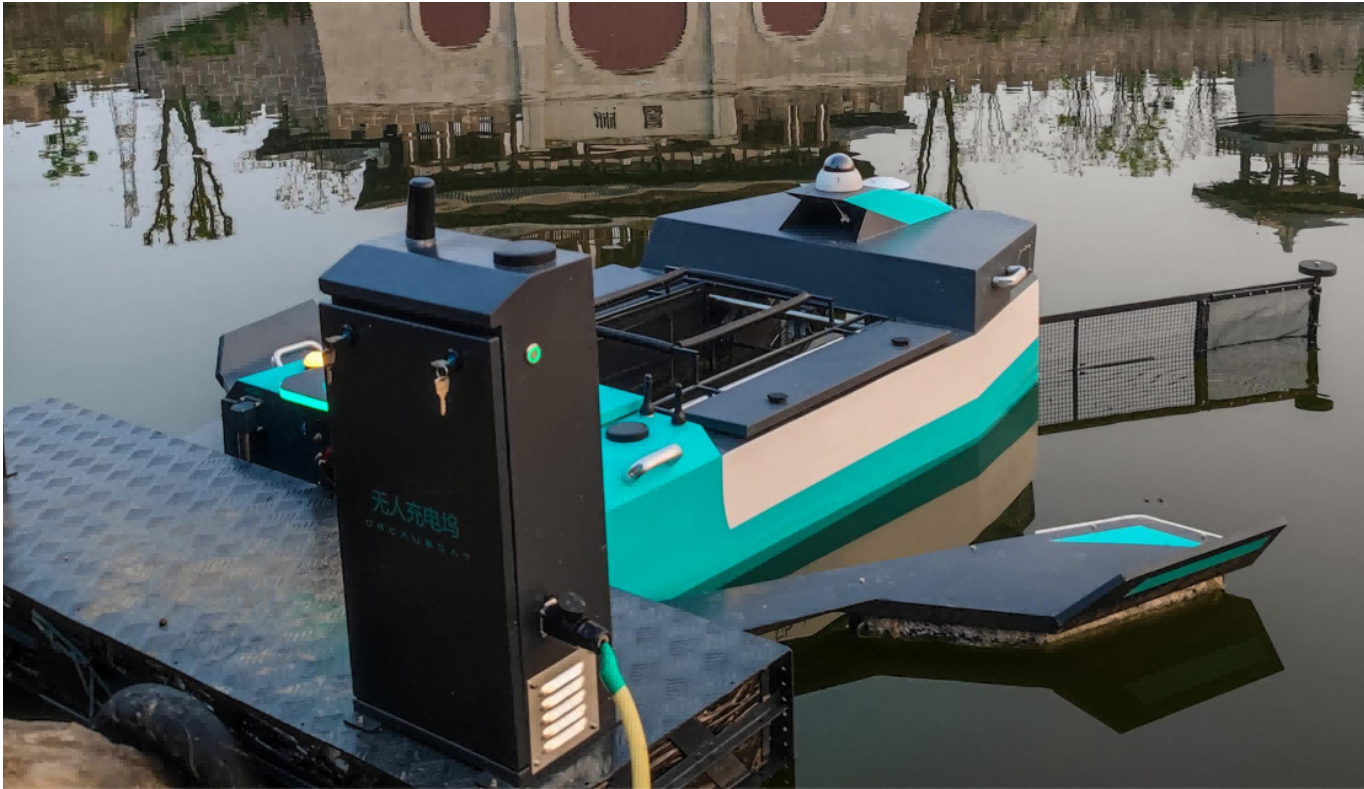
08

Propaganda is everywhere

There are colorful LED screens on both sides of the hull, and customers can use PAD to edit the displayed text in real time according to your needs.



UNMANNED GARBAGE COLLECTION BOAT



SMURF is the first unmanned cleaning boat in China that integrates surface garbage cleaning, intelligent inspection, and data monitoring. SMURF is mainly used in urban inland rivers, landscape lakes, reservoirs, offshore waters, and other water bodies. SMURF was awarded the title of “China Best Smart Sanitation Equipment”.

FEATURES

☑ Unmanned cleaning

☑ Daily water area inspection

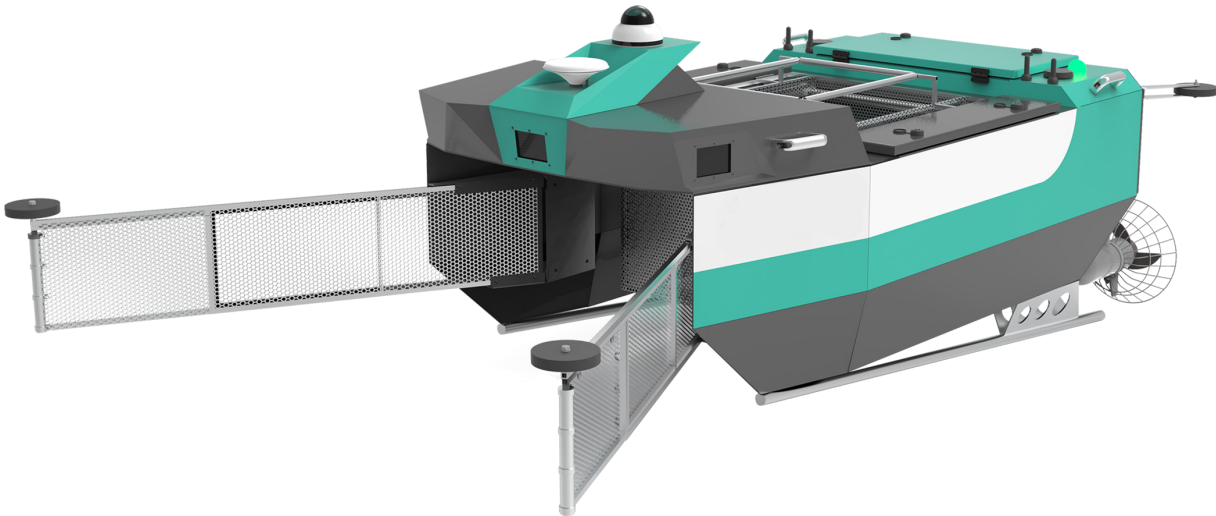
☑ Data monitoring

☑ Automatic charging

Hull size	2860*1700*1050 mm	Hull material	High strength aluminum alloy
Hull height	140kg	Loaded garbage	50kg
Depth of immersion	470mm	Power plant	Electric propulsion
Maximum speed	2m/s	Battery life	8-10 hours

PRODUCT HIGHLIGHTS

- 01
- High-precision positioning**
Based on RTK's high-precision positioning, the unmanned boat can achieve centimetre-precision water surface positioning and better cope with complex water bodies.
- 02
- Autonomous and precise obstacle avoidance**
Relying on the equipped millimetre-wave radar + vision sensor, the unmanned boat can accurately avoid obstacles and can perform scene modelling of operating waters.
- 03
- Intelligent path optimization**
With the support of intelligent algorithms, the unmanned boat can independently plan the best cleaning path, which can achieve efficient and safe water cleaning operations.



- 04
- Automatic lifting of garbage basket**
The garbage basket can be automatically lifted to facilitate the dumping of garbage, and at the same time, it can reduce the water resistance during sailing.
- 05
- The latest generation flexible extension arm**
Using the industry's latest generation of flexible extension arms, it can clean all edges and spots in the water body, including the tiniest spot.
- 06
- The latest generation battery system**
Using the latest BYD batteries + LG imported batteries, the battery life can reach 10 hours.
- 07
- Double boat pulling net technology**
Support the double-vessel pulling net cleaning scheme, greatly increasing the water areas cleaned, and making the water cleaning process more efficient.
- 08
- Bluetooth Smart Speaker**
Equipped with Bluetooth smart speakers, it can warn illegal fishing and dangerous behaviours in water as soon as possible, and achieve efficient and safe inspection.

SMART LEISURE ELECTRIC BOAT

LIGHT BOAT



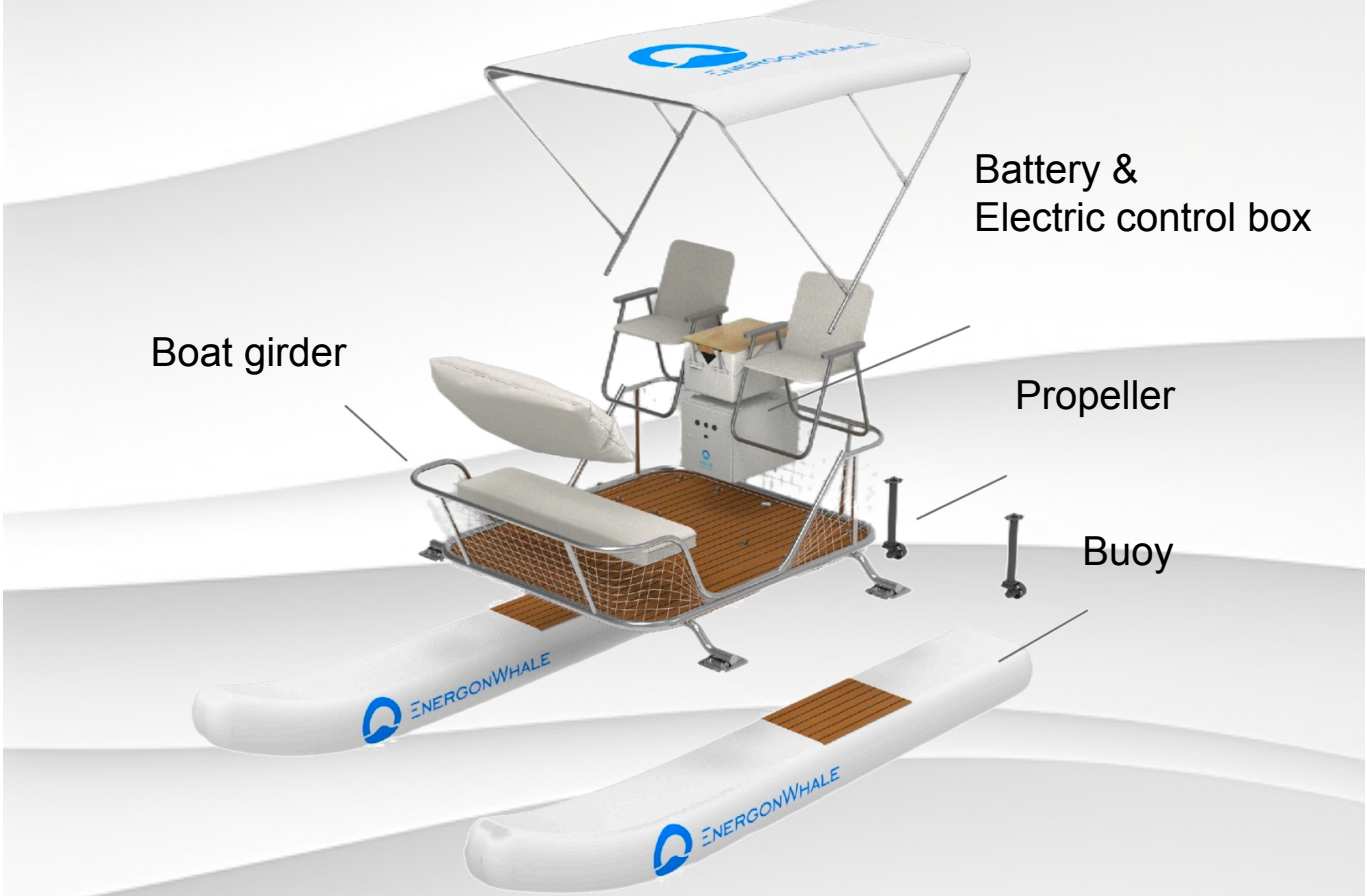
5 ADULTS	PASSENGER CAPACITY
500 KG	MAX LOAD
3 KN	MAX VELOCITY
4 HOURS	MAX ENDURANCE

“LIGHT BOAT ”is a new type of electric boat that was born for the camping lifestyle. The freestyle, spacious, and water-friendly design features allow passengers to enjoy a different camping experience on the water. Multiple camping scenes can be realized on the "light boat": fishing, sightseeing, barbecue, etc. “LIGHT BOAT”will meet the various operational needs of scenic spots and parks and become a benchmark for water recreation projects.

PARAMETERS

L*W*H	3.8M*2.6M*2.1M
ONBOARD DECK	1.8M*1.5M
TOTAL WEIGHT	110 KG
BATTERY WEIGHT	16 KG
BATTERY CAPACITY	2.3 KWH
PROPELLER POWER	350W*2
CONTROL SYSTEM	REMOTE CONTROL

STRUCTURE & ACCESSORIES





AWNING



CUSHION & PILLOW



REMOTE CONTROL



CAMPING CHAIRS



STORAGE BOX



HORN

APPLICATION



01 WATER LEISURE

The Light Boat supports various application scenarios, such as movie, fishing, dinner party, water leisure, and yoga.

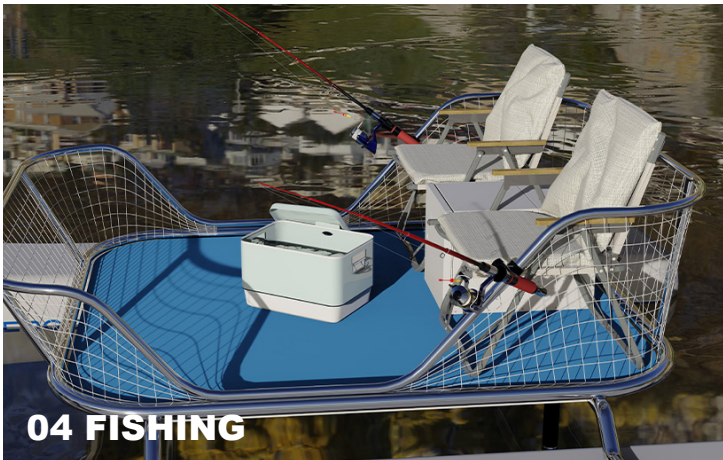
In according to the specific needs of scenic spots and parks, the onboard deck can also be reconstructed to satisfy as many requirements as possible.



02 DINNER PARTY



03 MOVIE



04 FISHING



05 YOGA

UNMANNED SURFACE RESCUE VEHICLE REMOTE CONTROLLED LIFEBUOY



Smart Remote Control Lifebuoy is a life-saving equipment that can quickly rescue people who fall into the water. Quickly throw it into the water from the shore or a ship, and control it through a smart remote control, the hull sails to the side of the person who fell into the water, so that he can be rescued safely. It can be equipped and used in various types of ships, ports, docks, swimming pools, embankments, etc.

“ Relong now has two high-efficiency smart lifebuoys, Dolphin 1 and Blue Whale. ”

MODEL	RELONG DOLPHIN 1	RELONG BLUE WHALE
WEIGHT	13 KG	13.5 KG
DIMENSION	1150*830*210 MM	1034*816*230 MM
BUOYANCY	32 KG	62 KG
BATTERY LIFE	30 MINS	30 MINS
REMOTE CONTROL RANGE	≥800 M	≥1000 M
PROPULSION	PROPELLER	DOUBLE PROPELLER



DOLPHIN 1

UNMANNED SURFACE RESCUE VEHICLE

The Dolphin 1 is in bright orange and mounted with two high penetration flashing lights, making the buoy highly visible in long distances and bad weather.

“As the first generation of smart lifebuoys-Dolphin 1 has always performed well in the field of rescue and has been exported to many countries.”

Dolphin 1 is designed to ensure personal safe. The propeller is wrapped by a metal shell so as to protect the user from injury and avoid the propellers entangling with water plants.



EASY OPERATION

The Dolphin 1 is controlled by a simplified remote controller. Users have reported no difficulty when using it for the first time.

RELIABLE AND SAFE

The battery is storied in an independent cabin, the Dolphin 1 can keep functioning even the hull is damaged.

EASY DEPLOYMENT

Equipped with dedicated storage device, such as Beach Deploy, Deck Deploy, and Vehicle Deploy

POWERFUL PROPELLER & STRONG BUOYANCY

The two propellers can drive the Lifebuoy to 8kn at the highest. The Lifebuoys provide buoyancy as large as 1.5 regular buoys to carry two people at a time.

MATERIAL	PE/PU	DIMENSION	115*83*21cm
WEIGHT	13kg	BUOYANCY	22kg
DRAFT	0.2m	MAX SPEED	4m/s

Above specs for reference only,customized design is avaiable.



BLUE WHALE

UNMANNED SURFACE RESCUE VEHICLE

“Blue Whale is a re-optimized product on the basis of the first generation of Dolphin 1. On the basis of Dolphin 1, more powerful functions such as GPS positioning and ultra-long-distance signal reception are added.”

The overall appearance of the Blue Whale smart lifebuoy follows the first-generation Dolphin 1, which is bright orange and eye-catching. There are high-penetrating fog lamps flashing on both sides, which can still easily achieve line-of-sight positioning and precise rescue at night or in bad weather.



- ☑ Relong Blue whale can tow 3 adults or 15kg of materials at the same time and can also be used for towing ropes.
- ☑ Work on both sides with 2 sets of double-sided pump thrusters and sensors, which can be thrown into the water directly.
- ☑ With a voice shouting function to calm the rescued person and guide them on how to operate.
- ☑ The remote-control distance is 1000 meters, the endurance is 30 minutes, can return automatically.
- ☑ The battery can be easily removed and replaced.

DIMENSION	1034*816*230 mm	WEIGHT	13.5kg	BODY MATERIAL	HDPE, anti-ultraviolet, anti-aging
BUOYANCY	62kg	MAXIMUM LOAD	15kg	REMOTE CONTROL RANGE	1000m
MAXIMUM SPEED	15km/h	BATTERY LIFE	30min	CHARGING TIME	2h