

DAEYANG Electric Company

UNDERWATER VEHICLES

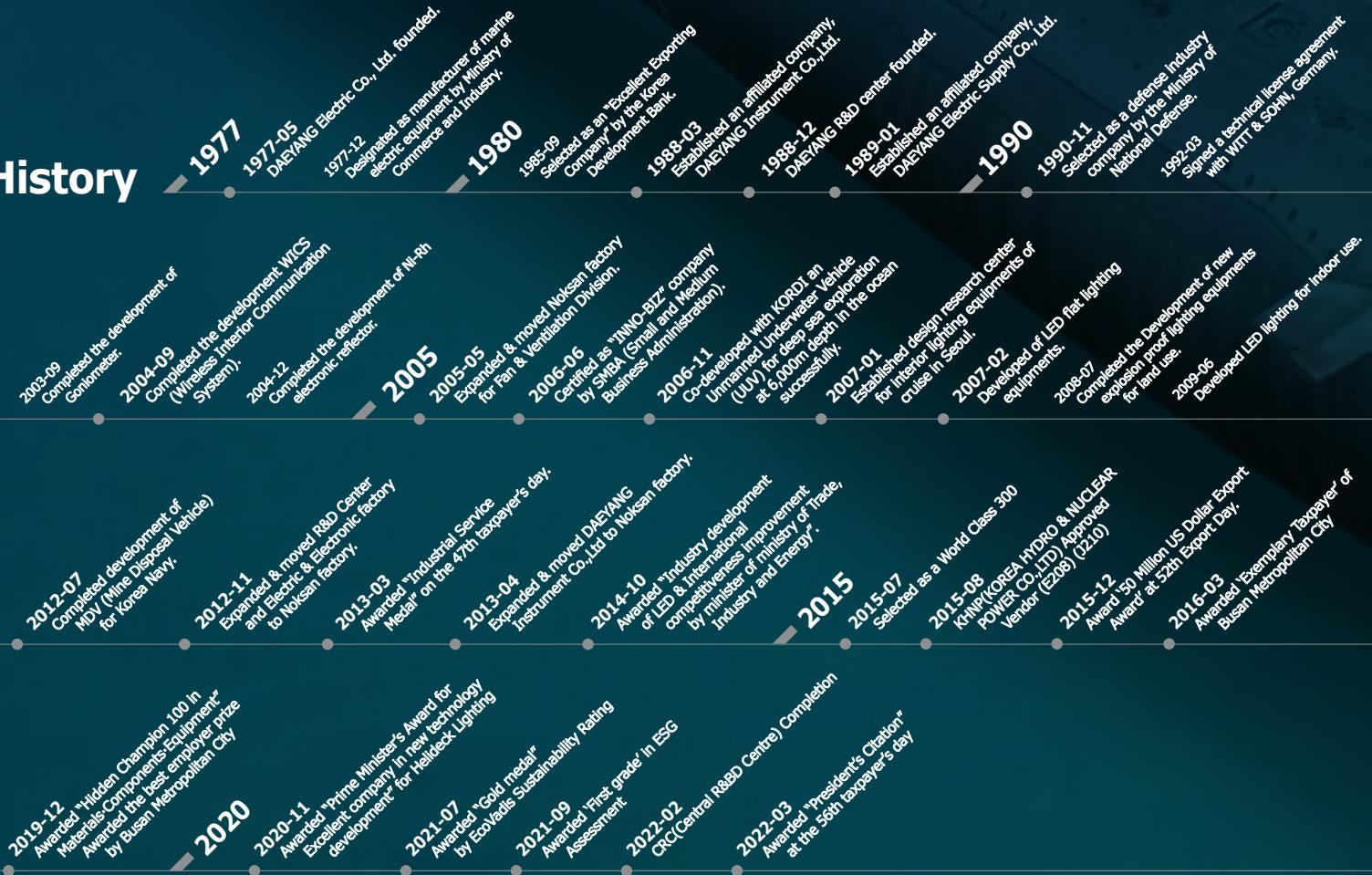
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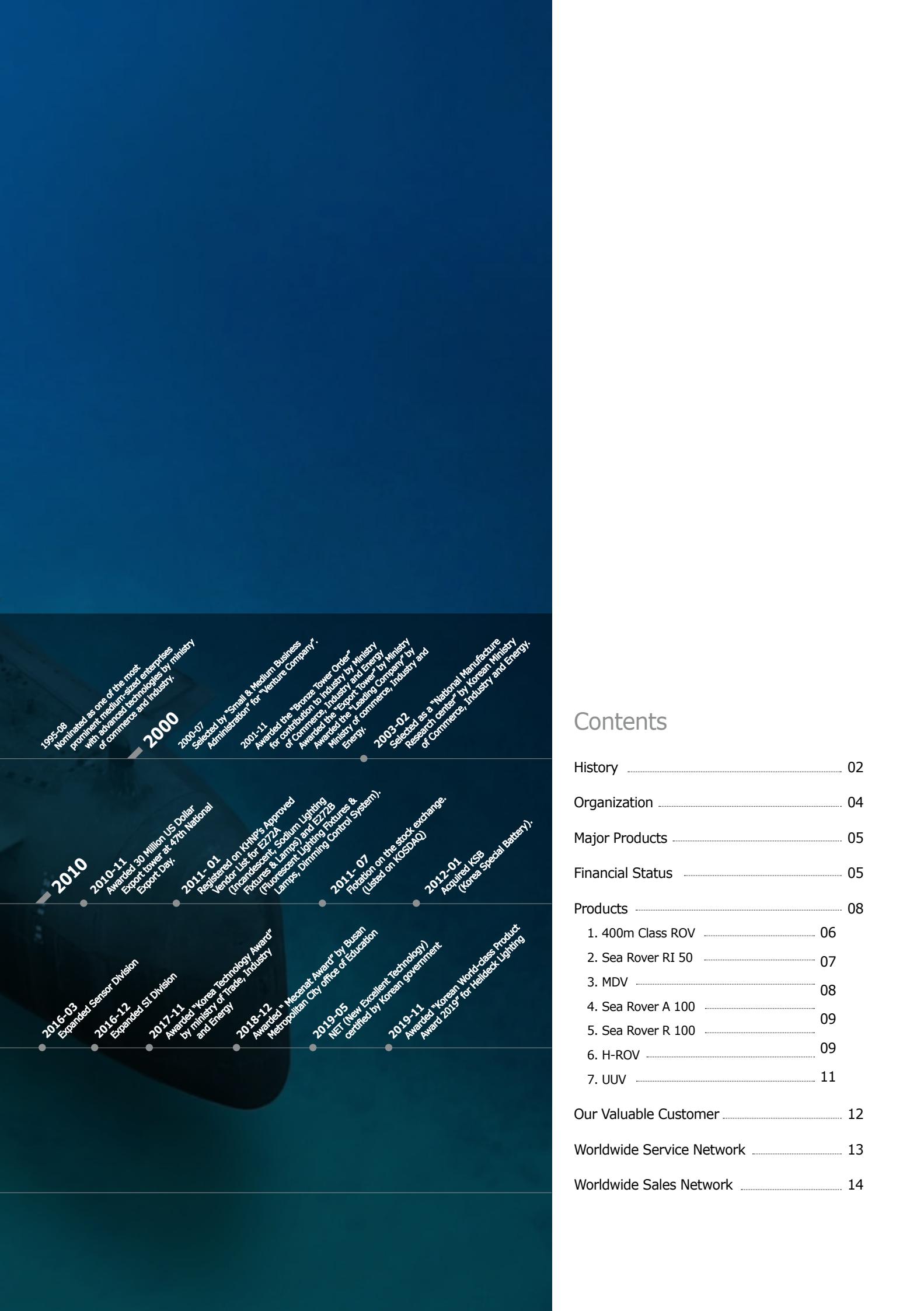
 **DAEYANG**

Technology developments and maximizing people's abilities are at the core of our philosophy and vision

We believe the purpose of company's existence is to support its members and society by producing continuous values with help of technology and human resources. Our employees are the best resources we can rely on, so we value the talented upbringing of our workers. Since the foundation of company we have implemented this philosophy and we will continue to put forth all our effort to achieve our goals through expanding technology and maximizing our employees' abilities.

History





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Organization

Number of employees
(2023)

370



Daeyang is an industrial leader in marine lightings, communication systems, power systems and nautical instruments. Based on over 46 years of experience in marine and shipbuilding industry, our superior products are acknowledged by various customers throughout the world.

Customer satisfaction is our first and only priority and we put endless effort to meet the highest standard. With heavy investment on research and development, our R&D center is one of the most famous research centers in the industry for its innovation and capability of product development.

We operate in various sites around Busan, Korea and have oversea liaison offices in Japan, North & South America, Europe, China, South Asia and Australia for immediate response to the customers' demands.



SENSOR DIVISION
Incheon, Korea



NOKSAN FACTORY
Busan, Korea

Major Products



HEAD OFFICE
Busan, Korea



Central R&BD Centre
Magok, Korea

Lighting

- Indoor Lights
- Outdoor Lights
- Navigation Lights & Signal Lights
- Helideck/Helipad/Heliport Lighting
- Hazardous Area Lights
- Receptacle & Switch
- Reefer Container Socket
- Lighting Architecture

Communication & Navigation

- Integrated Communication System (ICS)
- Reefer Container Monitoring System (RCMS)
- Power Cable Transmission System
- Integrated Navigation System (INS)
- Electro-Magnetic Speed Logs (EM-LOG)
- Degaussing/Deforming System
- Ship Shore Communication Link System (SSCLS)

Panel & Switchboard

- Main Switchboard
- Emergency Switchboard
- Power Distribution Panel
- Engine Control Console
- Bridge Control Console
- Switchboard for Train

Underwater Vehicle

- Remotely Operated Vehicle (ROV)
- Autonomous Underwater Vehicle (AUV)
- Deep Sea Unmanned Underwater Vehicle (UUV)
- Mine Disposal Vehicle (MDV)

Nautical Instrument

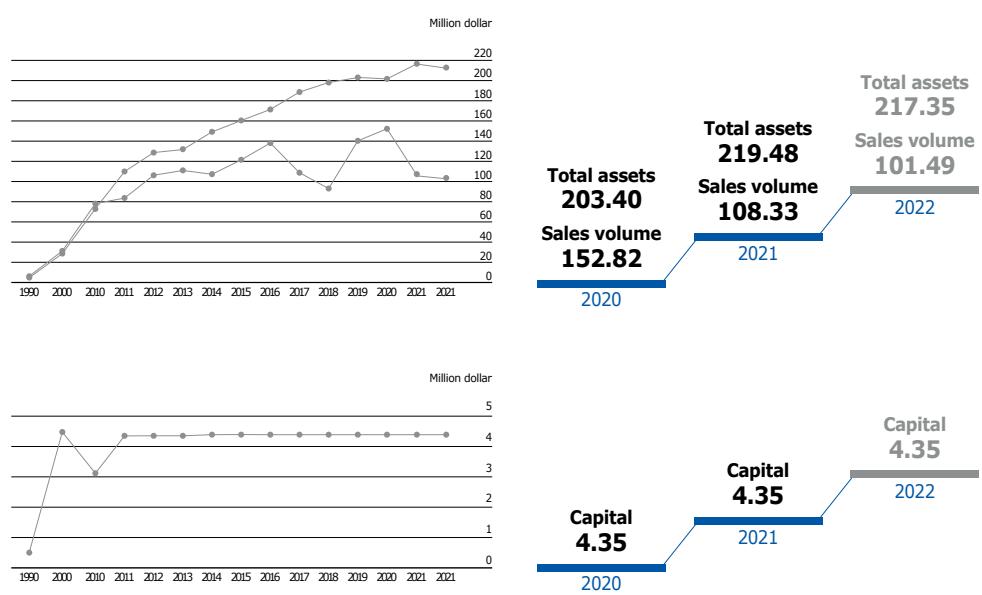
- Anemometer & Anemoscope
- Rudder Angle Indicator
- Weather Information System (WIS)
- Whistle

Sensor

- Temperature Sensor
- Pressure Sensor
- Weather sensor

Financial Status Dec, 2022

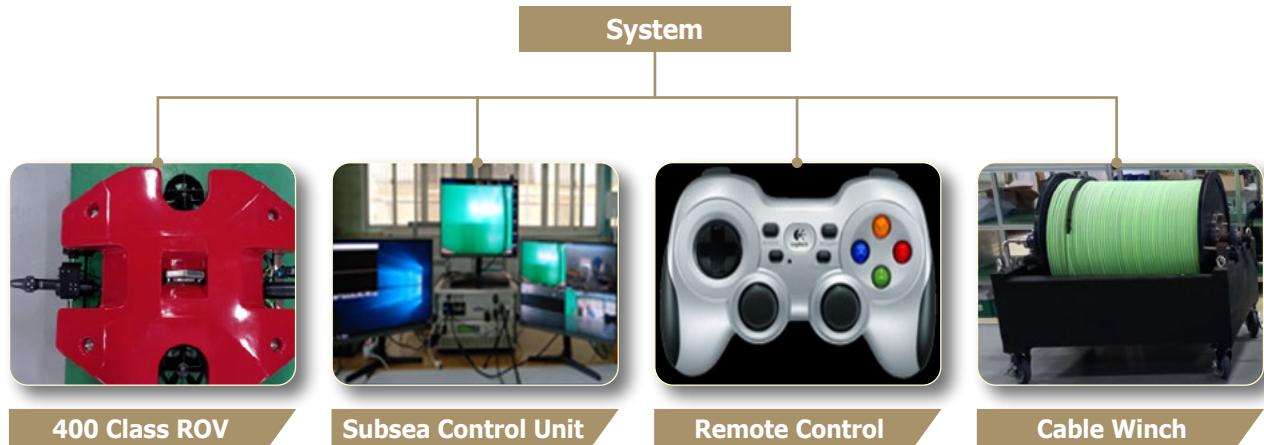
(unit: Million dollar / Exchange Rate 1 USD = 1,100 KRW)



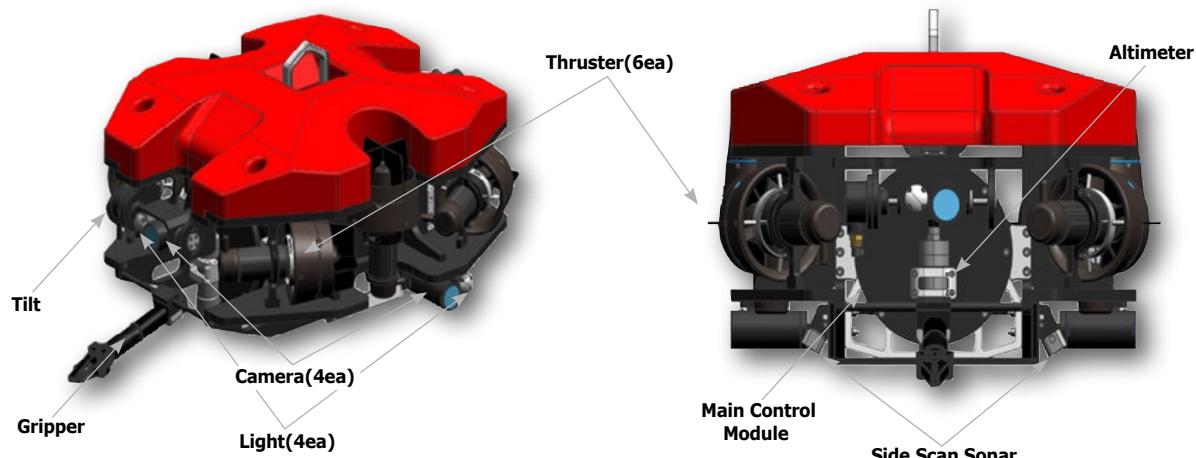
1 400m Class ROV

1. Objective

400m Class ROV is an equipment for inspection of ocean treasure



2. Contents



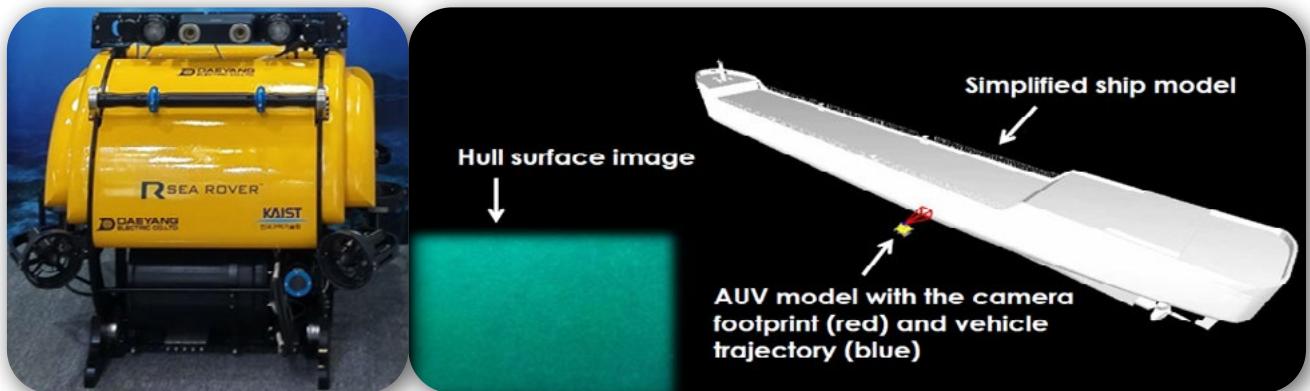
3. Specification

400m Class ROV	
Dimension(L×M×H)	0.7(m)×0.5(m)×0.8(m)
Weight	66kg
Material	AL6061
Max. operating depth	400m
Max. speed	1.5knots
Sensors	Camera(4ea), Light(4ea), Depth sensor, AHRS, Side Scan Sonar

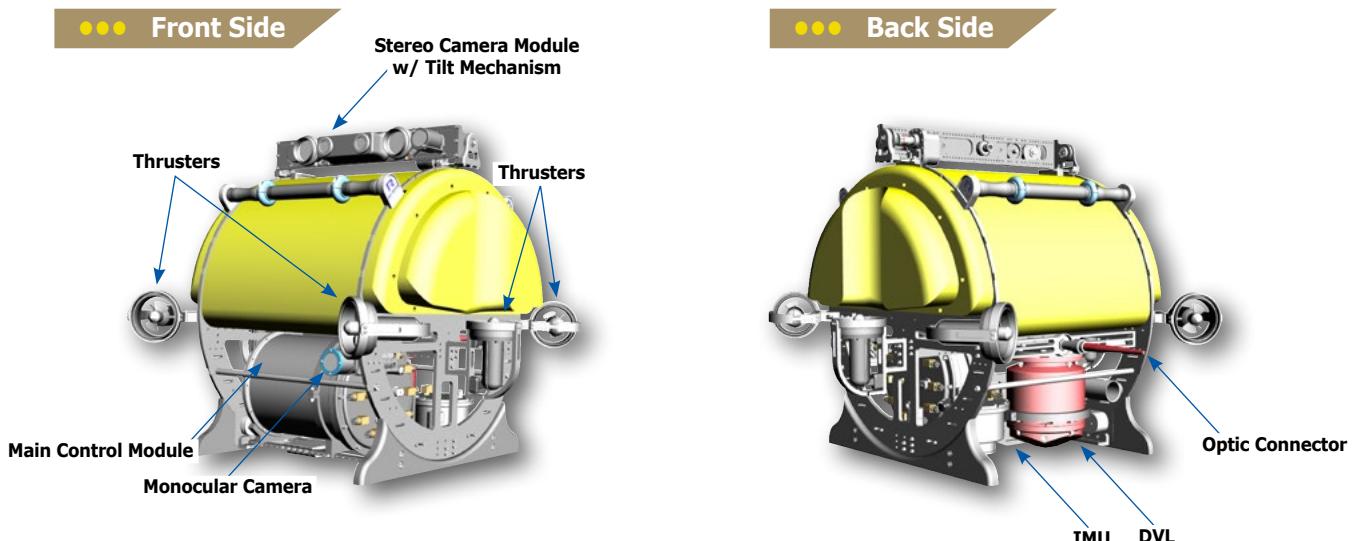
2 Sea Rover RI 50

1. Objective

Sea Rover RI 50 is a two-man-portable hovering ROV designed for ship hull inspection. Sea Rover RI 50 uses thrusters to hover, rotate in place and translate in any direction, enabling operations in confined areas.



2. Contents



3. Specification

Sea Rover RI 50	
Dimension(L×M×H)	0.9(m)×0.9(m)×0.8(m)
Weight	About 114kg
Material	AL6061
Max. operating depth	50m
Max. speed	2knots
Sensors	Altimeter, DVL, IMU, Stereo vision Camera, Light, GPS

3 MDV

Mine Disposal Vehicle

1. Objective

MDV is an equipment for searching, identification and disposal of the mines.



2. Contents

Development of Design and Integration Technology for MDV

Development of Technology for Automatic Control

Design and Application of Hybrid Navigation Algorithm

Development of Technology for precise control of Communication System

3. Specification

MDV	
Dimension(L×M)	3.650(m)×0.55(m)
Weight	About 437kg
Material	AL6061, FRP
Sea State	Wave height : below 2.5m
Max. operating depth	000m
Max. speed	0 knots
Max. operating time	0 knots : over 1.5 hours 0.0 knots : over 3 hours
Thrusters	For./Rev.(2), Ver.(2), Lat.(2)
Telemetry	Fiber Optic / Coaxial / RF
Telemetry Cable	Fiber Optic : over 2,000m Coaxial : over 500m
Power	Lithium Polymer Battery
Sensors	USBL, GPS, DVL, Multi-beam Sonar, Forward-looking Sonar, Altitude Sonar, Camera, Light, Pressure sensor, Compass,...



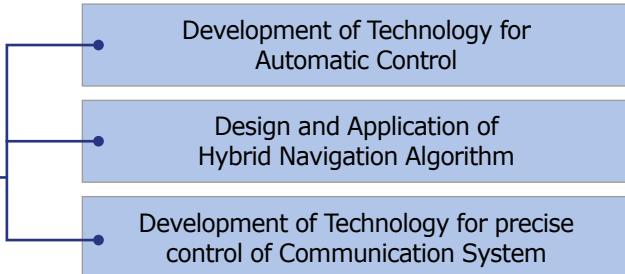
4 Sea Rover A 100

Autonomous Underwater Vehicle

1. Objective

AUV is an equipment for surveillance and monitoring of environmental ecology in a coastal areas.

2. Contents



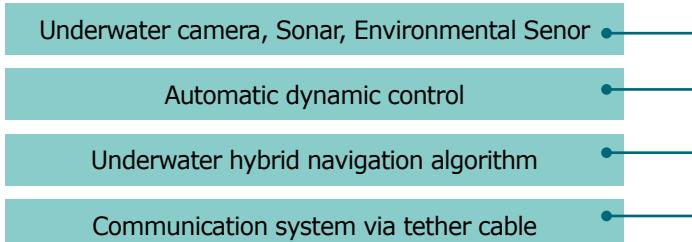
5 Sea Rover R 100

Autonomous Underwater Vehicle

1. Objective

Sea Rover R 100 is an equipment for surveillance and monitoring of environmental ecology in costal areas.

2. Contents



3. Specification

	Sea Rover A 100	Sea Rover R 100
Dimension(L×W×H)	2.70(m)×0.75(m)×0.60(m)	0.74(m) × 0.54(m) × 0.36(m)
Weight	120Kg	40Kg
Material	AL6061, ABS	AL6061, ABS
Sea State	Wave height : below 0.5m	Wave height : below 0.5m
Max. operating depth	100m	100m
Max. speed	4knots	2 knots
Max. operating time	10 hours (Dependent on speed and extra configuration)	Dependent on power resource of surface platform
Thrusters	Horizontal 1EA	Horizontal 2EA , Vertical 1EA
Telemetry	Wireless LAN : IEEE 802.11n/b/g Acoustic modem : For tracking and status updates	Fiber Optic
Telemetry Cable	N/A	Tether cable 300m
Power	768W (2EA), Lithium Polymer Battery	DC 48V, 1 KW
Sensors	USBL, GPS, DVL, Multi-beamSonar, Altitude Sonar, Pressure sensor, IMU, AHRS, Environmental sensors	Low-light Camera, Color Camera, USBL, GPS, Sonar, Altimeter, Depth sensor, AHRS, Environmental sensors
Payload	2kg	1kg
Tether length	N/A	300m(optional)

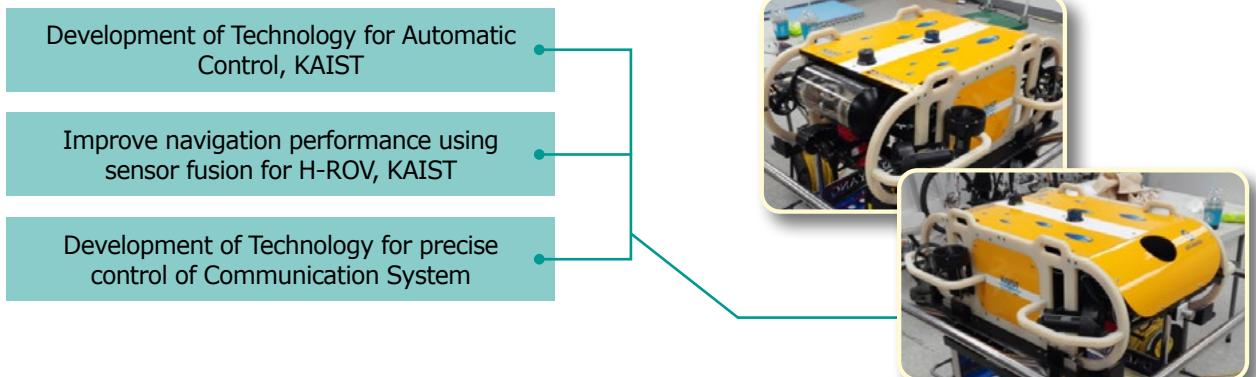
6 H-ROV

Hybrid – Remotely Operated Vehicle

1. Objective

H-ROV is a two-man-portable hovering ROV designed for ship hull inspection. H-ROV uses thrusters to hover, rotate in place and translate in any direction, enabling operations in confined areas.

2. Contents



3. Specification

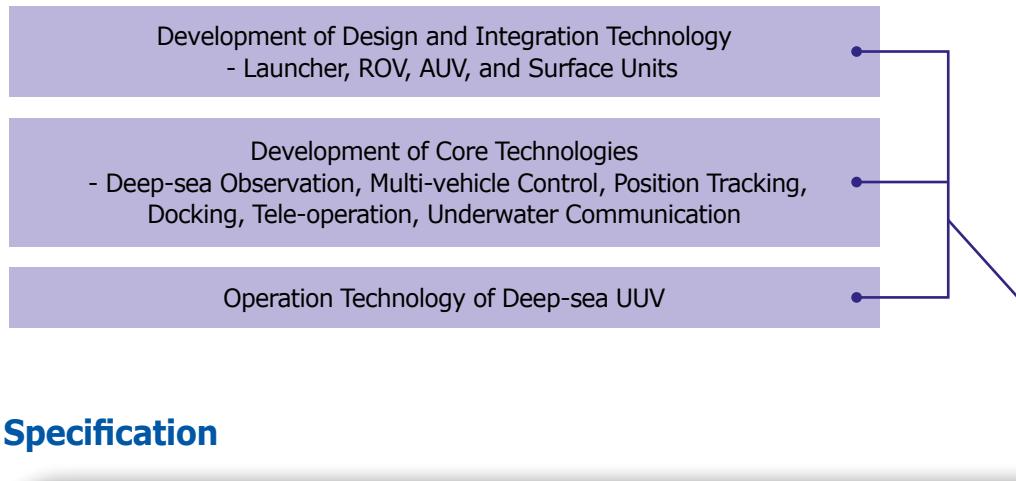


H-ROV	
Dimension(L×W×H)	0.97 X 0.83 X 0.37(m)
Weight	About 70kg
Material	AL(Pressure Vessels), ABS(Fairings), MC nylon(Main frames)
Sea State	Wave height : below 0.5m
Max. operating depth	100m
Max. speed	2knots
Max. operating time	4 hours (Dependent on speed and extra configuration)
Thrusters	Forward, Lateral (4) Vertical (3)
Telemetry	Optical communication
Telemetry Cable	Fiber Optic Cable (Single Mode) ; Neutral buoyancy in seawater
Power	29.4V(7-Cell, 15Ah), 388W Lithium Polymer Battery (3EA)
Sensors	USBL, DVL, Scanning Sonar, Altimeter, IMU, Camera, Light, Pressure sensor, Leakage sensor
Payload	About 1kg
Tether length	50m, 100m(Optional)

1. Objective

UV is used for exploration of deep sea to help the ecological environment research and the discovery of new natural materials

2. Contents

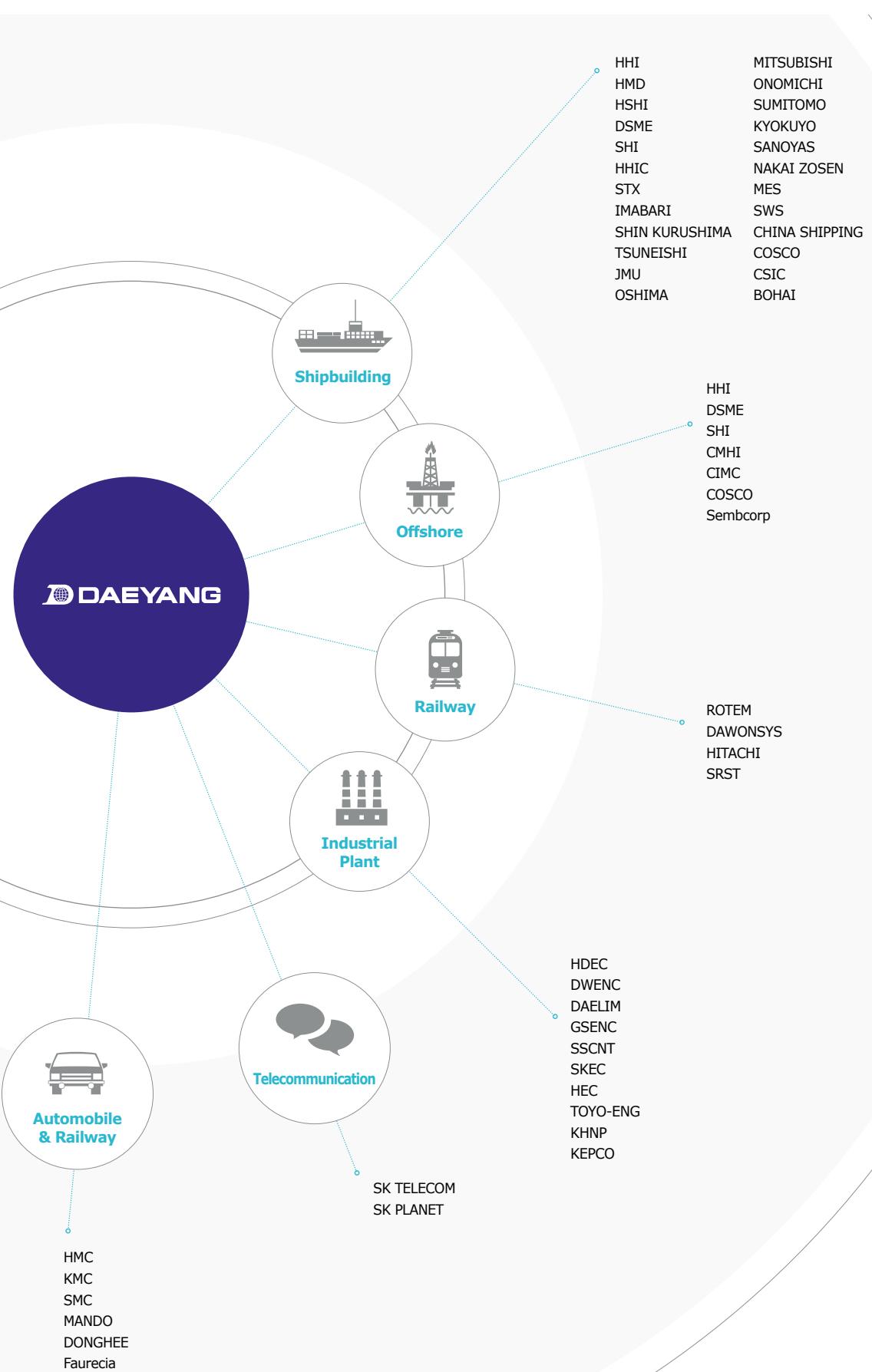


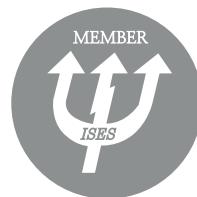
3. Specification



	ROV	Launcher
Dimension(L×W×H)	3.3(m)×1.8(m)×2.2(m)	2.70(m)×0.75(m)×0.60(m)
Weight	About 3,660kg	About 1,100Kg
Material	Al6061 etc..	Galvanized steel
Sea State	N/A	N/A
Max. operating depth	6,000m	6,000m
Max. speed	For./Lat./Vert. 1.5/1.0/1.5 knots	N/A
Max. operating time	N/A	N/A
Thrusters	5HP X 6	1HP X 2
Telemetry	Fiber Optic	Fiber Optic
Telemetry Cable	Fiber Optic : over 8,500m	Fiber Optic : over 8,500m
Power	Main input : AC 2800V	Main input : AC 2800V
Sensors	2-7f Manipulators, USBL transponder, 8 cameras, CTD, DVL, FLS, Multibeam Sonar	2 cameras / 2 lights Altimeter, USBL transponder, Side scan sonar, Forward Looking sonar
Payload	200kg	N/A
Tether length	30/50/70m	N/A

Our Valuable Customer





Worldwide Service Network

National	Company	Website
Argentina	Turbogen	www.turbogen.com
Australia	Read's Electric Company PTY, Ltd	www.readselectric.com
Belgium	Maintenance Partners NV	www.maintenancepartners.com
Brazil	Metalock Brasil	www.metalock.com.br
Canada	Hostmost Marine Services	www.hostmostgroup.com
	Changshu Ruite Electric Co.,Ltd	www.cn-ruite.com
	Dalian Shun Ze Marine Electrical Engineering Co.	www.dlsz.cn
	Huludao Haitong electric equipment manufacturing Co., Ltd.	www.hldht.cn
	Jiangsu Hiscaler Electric Co., Ltd	www.hiscaler.com
China	RMS Marine Service Company Ltd.	www.rmsmarineservice.com
	Saiernico Electric & Automation Ltd	www.saiernico.com
	Shanghai NSE Co. Ltd.	www.nse.net.cn
	TIANJIN HAIRUN MARINE TECHNICAL CO.	www.tjhairun.com
	Zhejiang Xin Ya Electric Development Co. Ltd.	www.xy-cd.com
Colombia	Electronica Maritima ITEC SAS	www.iteccolombia.com
Croatia	PELIG D.O.O.	www.pelig.hr
Feroe Islands	MP Teknik Sp/f	www.mpt.fo
France	MACOR (Amarix Group)	www.macor.fr
Germany	Ing.-Buero Querin GmbH	www.querin.com
	Karle & Fuhrmann	www.karle-fuhrmann.de
Gibraltar	Sandvik Marine Group	www.sandvikservice.com
Greece	Nova Electronics s.a.	www.novaelectronics.gr
	A. Santamaria Spa	www.a-santamaria.it
Italy	Eligroup	www.eligroup.net
	S.I.R.M. spa	www.sirmspa.it
Japan	Bemac Uzushio Electric Company Ltd	www.bemac-uzushio.com
Lithuania	RSB Novikontas Ltd	www.novikontas.eu
Mexico	Marine Radio Surveyors	www.marineradiosurveyors.com
Netherlands	Navico	www.navico.com
	PAT-KRUGER GROUP	www.pat-kruger.com
Nigeria	Radial Circle Telecommunications Ltd	www.radialcircle.com
	BWSC Panama, S.A.	www.bwscpanama.com
Panama	Electromar Services SA	www.electromarpanama.com
	Intermaritime Group	www.intermaritime.org
	Talleres Industriales SA	www.talleresindustriales.com
Poland	Enamor	www.enamor.com.pl
	EPA Marine sp. z o.o	www.epamarine.pl
Romania	Navtron SRL	www.navtron.ro
Singapore	Cylect Electrical Engineering PTE Ltd	www.cylect.com.sg/cylect
	Jason Electronics Pte. Ltd.	www.jason.com.sg
South Africa	SMD Telecommunications Pty (Ltd)	www.smd-marine.com
	AAGE Hempel	www.aagehempel.com
Spain	Crosscomar S.L.	www.crosscomar.com
	Hermanos Alfaro	www.halfaro.com
Sweden	Laholm Marine & Industry Services AB	www.lmis.se
Taiwan	Reson Electronics	www.reson.com.tw
Turkiye	Besiktas Marine	www.besiktasmarine.com
United Kingdom	S.I.R.M. UK	www.sirmspa.it
	Belfor Holdings Inc.	www.belfor.com
U.S.A	Koffler Electrical Mechanical Apparatus Repair	www.koffler.com
	Seaboard Controls INC	www.seaboardcontrols.com
	Simplex Americas LLC	www.simplexamericas.com
Venezuela	C.A. Metalmecanica Industrial y Naval	www.camin.com.ve
	Radio Marina de Venezuela	www.radiomarinagroup.com

Worldwide Sales Network

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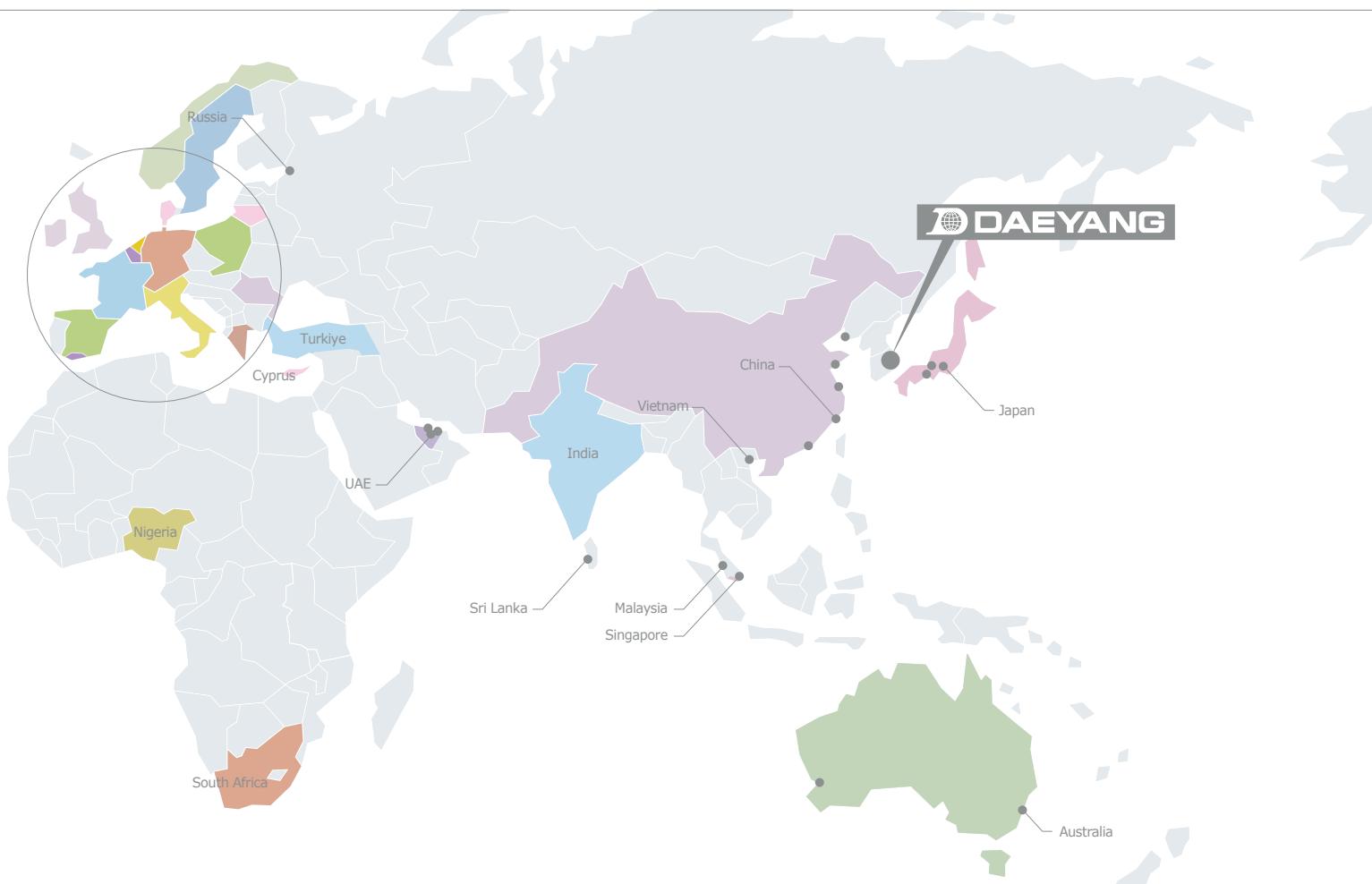
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Daeyang Electric Company Worldwide Network

■ Worldwide Service Network
● Worldwide Sales Network





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DAEYANG QR Code

You can see more detailed information about our products take a QR.

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Fax. 82-51-200-9719

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