

# HOLD CLEANING ROBOT



Start Slide



# Robotic Hold Cleaning Rental Model

## Innovations for Marine Cleaning

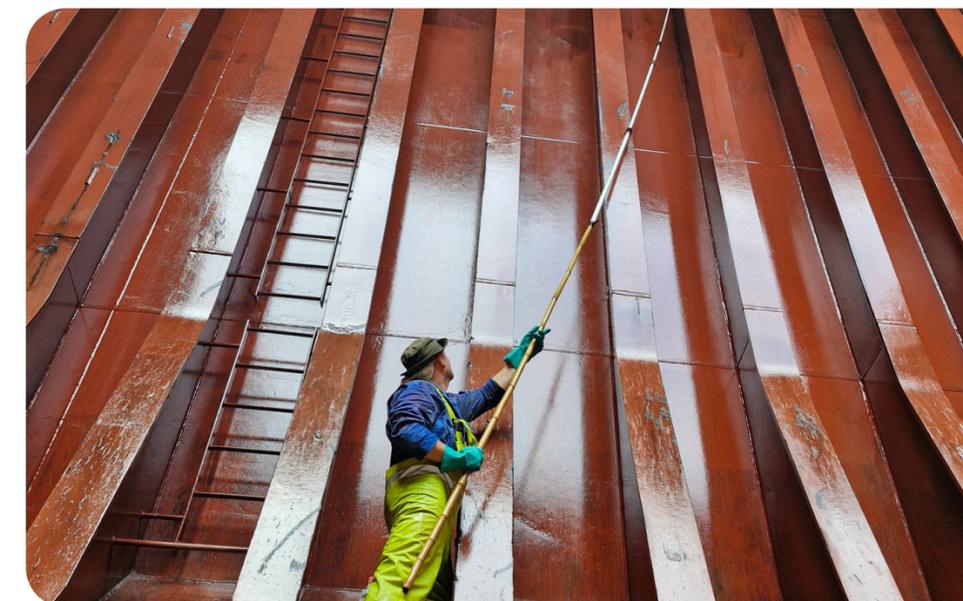
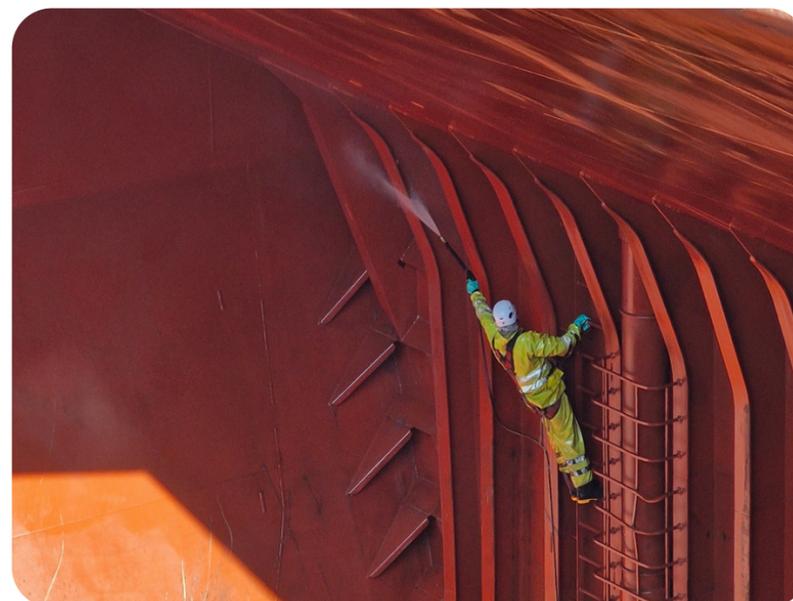
Transforming maritime cargo hold cleaning through innovative robotic technology and flexible rental solutions



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# The Challenge We're Solving

Traditional Manual Cleaning Problems



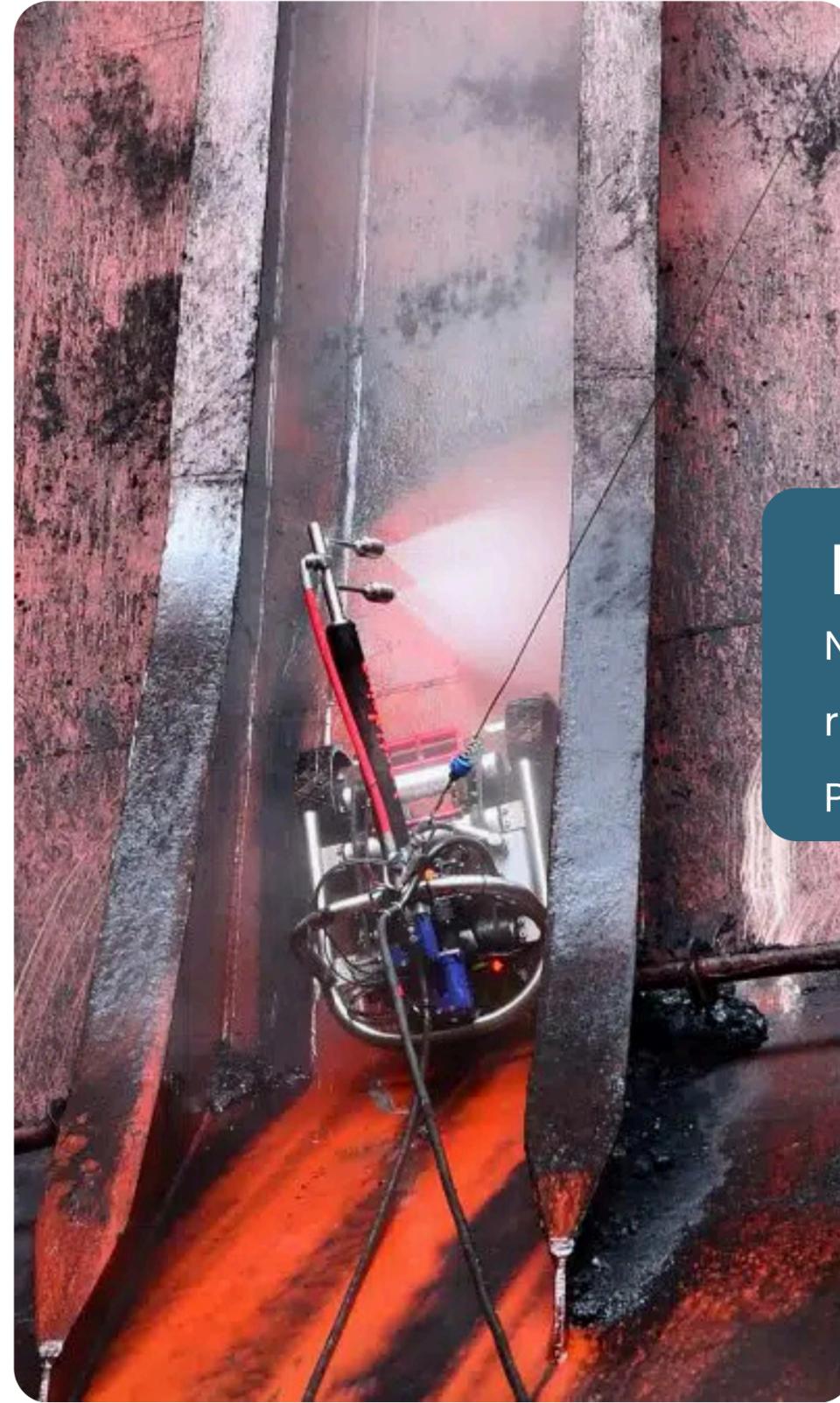
- High labor and operational costs
- Inconsistent cleaning quality
- Extended off-hire downtime
- Hazardous working conditions for crew
- Inefficient and time-consuming processes

Cargo hold cleaning between voyages has traditionally relied on manual labor – a process that puts crew at risk while delivering inconsistent results and causing costly delays.



[See More](#)

# Our Revolutionary Solution



## Robotic Technology

Magnetic crawler with high-pressure water jets automates the entire cleaning process

## Rental Model

No capital investment  
required -  
Pay-as-you-go

## Global Service

Robot travels with your vessel  
and returns via air freight



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# How Our Service Model Works



## UAE Hub Deployment

Robot dispatched from Fujairah Free Zone to your vessel



## Onboard Operation

Cleaning performed during voyage to next port



## Port Offloading

Robot removed at destination (e.g., Singapore)



## Air Freight Return

Express cargo service returns robot to UAE hub



## Maintenance & Redeployment

Full inspection and servicing before next rental



[See More](#)

# Key Value Proposition



## **Faster Turnaround**

Eliminate dedicated cleaning stops and reduce off-hire time



## **Enhanced Safety**

Keep crew out of dangerous confined spaces



## **Cost-Effective Service**

No equipment investment -  
Pay-as-you-go



# Rapid & Thorough Cleaning Performance



**500  
Bar Pressure**

High-pressure spray  
jets for deep cleaning

[See More](#)



**500  
m<sup>2</sup>/hour**

High-pressure spray  
jets for deep cleaning



**95%  
Surface Coverage**

Reaches difficult areas that manual  
teams struggle with



**50%  
Time Reduction**

Faster than conventional cleaning  
methods



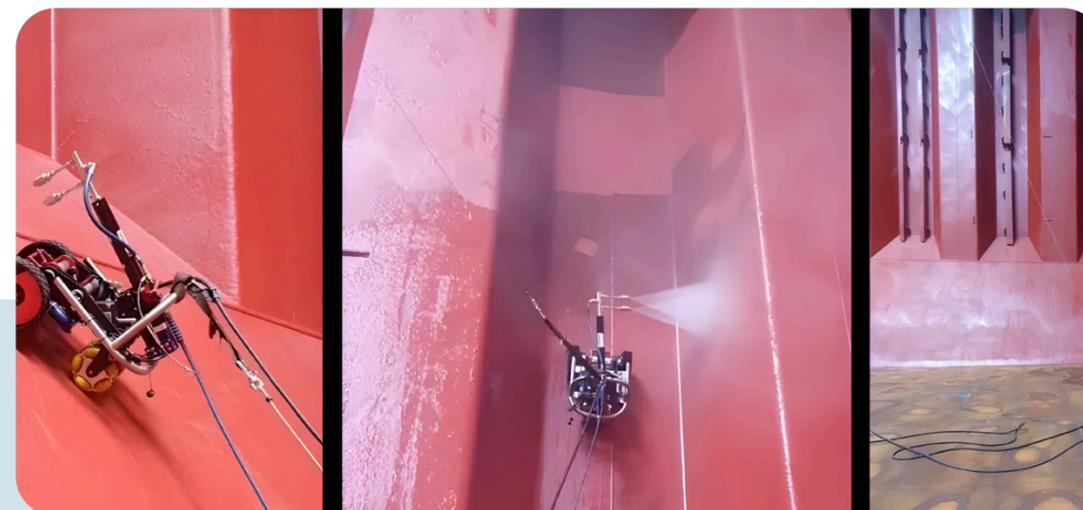
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# Safety Revolution in Hold Cleaning



## Traditional Risks Eliminated

- Working at dangerous heights
- Confined space entry hazards
- Chemical exposure risks
- Physical injury from manual labor



## Our Safe Solution

- Remote operation by single operator
- Crew stays outside hold during cleaning
- Minimal chemical exposure
- Automated access to difficult areas

# Eco-Friendly Cleaning Advantages

## Water Savings



40-70 tons vs 200+ tons for manual cleaning

## Chemical Reduction



Up to 100% reduction in chemical detergent use



## Environmental Benefits

- Requires only freshwater for most jobs
- Dramatically lower water consumption
- Less sludge production
- Reduced disposal costs
- Minimal environmental impact



**Robotic Hold  
Cleaning**

[See More](#)

# UAE Hub & Preparation Process



## Fujairah Free Zone Base

Robots stored with spare parts, ready for deployment



## Pre-Rental Testing

Each unit undergoes thorough testing before dispatch

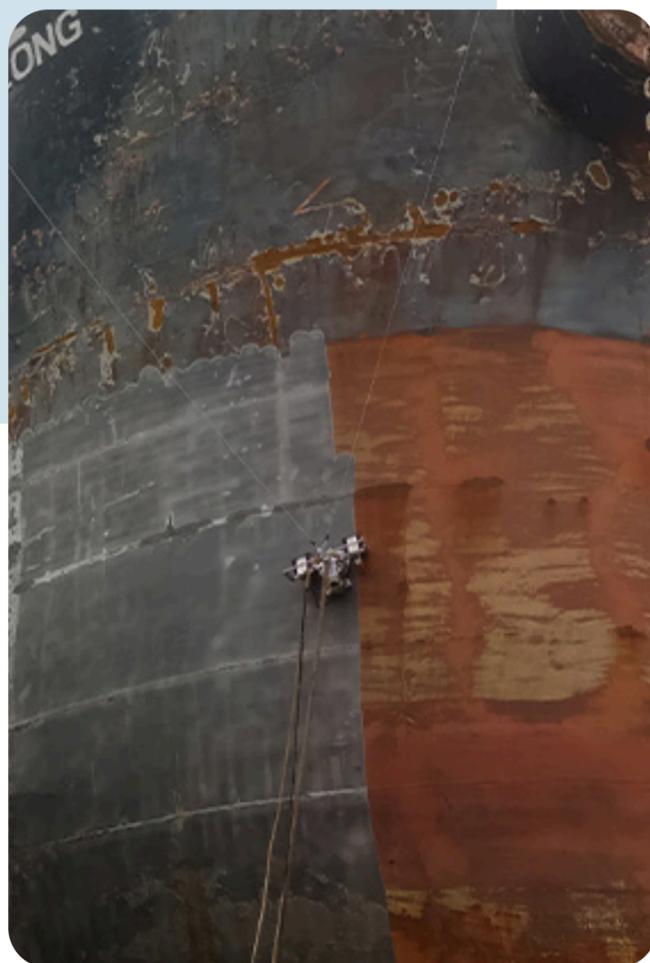


## Airline-Approved Packaging

Shockproof crate with user manual and checklists

[See More](#)

# Deployment to Your Vessel



1

## Rental Request

Client submits booking request for specific dates

2

## Contract Agreement

Daily rate and deposit terms agreed and signed

3

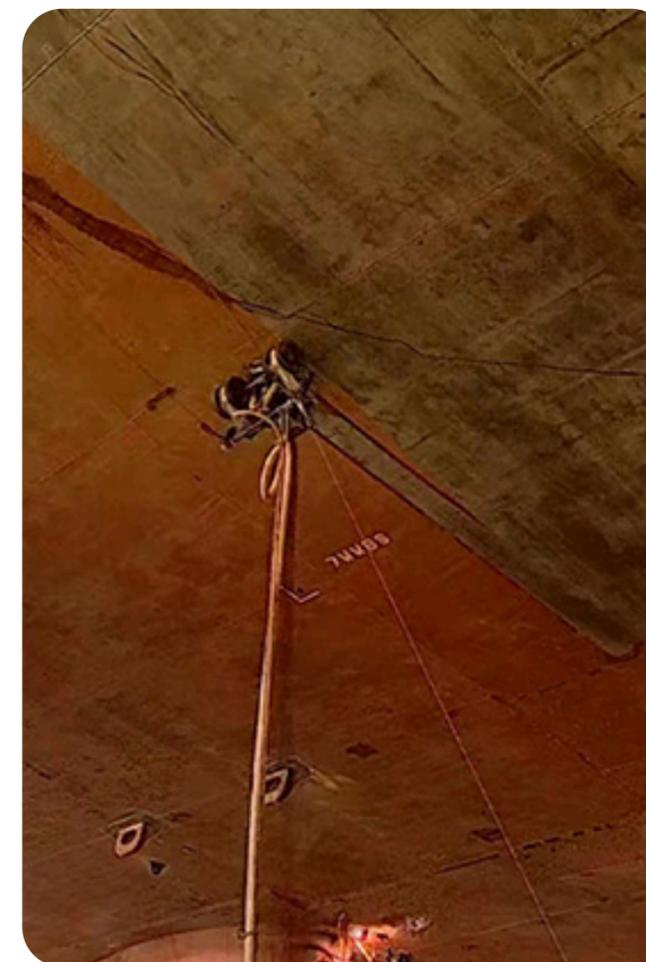
## Transport to Anchorage

Robot delivered to Fujairah anchorage via service boat

4

## Onboard Handover

Equipment transferred in protective crate with documentation



# Flexible Operation Options



## Dry Rental Option

Ship's crew operates the robot via remote control

- Cost-effective solution
- Crew training provided
- 24/7 technical support

## Wet Rental Option

Trained technician sails with vessel to operate robot

- Expert operation guaranteed
- Minimal crew involvement
- Optimal cleaning results



[See More](#)

# Return & Logistics Process



## Port Arrival

Robot repacked in crate and offloaded at destination port



## Customs Clearance

Local agent handles all customs procedures and documentation



## Air Freight Return

Express cargo service via Emirates SkyCargo or DHL



[See More](#)

# Comprehensive Maintenance Program



**Free Zone Re-Import**  
Avoiding duplicate  
duties through UAE Free  
Zone



**Unpacking & Inspection**  
Thorough examination  
of all components and  
systems



**Mechanical Service**  
Tracks, motors,  
magnets, nozzles, and  
hoses checked



**Electrical Testing**  
All electrical systems  
tested and calibrated



**Cleaning & Repackaging**  
Unit cleaned, re-greased,  
and prepared for next  
deployment



[See More](#)

# Transparent Pricing Structure

## Daily Rental Fee

- **\$700-\$1,000 USD** per day
- Covers robotic unit and standard accessories
- Billing only for days in use

## Optional Operator Service

- **\$200 USD** per day
- Certified robot operator for wet rental
- Expert operation guaranteed

## Security Deposit

- **\$30,000-\$50,000 USD**
- Fully refundable upon safe return
- Protects against loss or damage

**No Hidden Fees:** Air freight and basic consumables included. Specialty items or damage charges at cost only.

See More

# Eliminate Off-Hire Downtime



## Traditional Cleaning Timeline

- Vessel arrives at port
- Wait for cleaning crew availability
- 3-4 days off-hire for cleaning
- Additional delays for inspection
- Lost revenue during downtime



## Our Robotic Solution

- Cleaning during voyage
- No port waiting time
- Ready for next cargo immediately
- Maximized earning days

"Every day saved is increased earning time for the vessel"

[See More](#)

# Dramatic Cost Savings Analysis

**3-4**

Days Saved

Turnaround time reduction  
vs shore cleaning

## Reduced Expenses

- No large shore crew hiring costs
- Minimal chemical purchases
- Lower waste disposal fees
- Reduced crew overtime
- No injury-related costs

**2-3**

Crew Required

Minimal supervision vs  
large shore crews

## Increased Revenue

- More laden days per voyage
- Tighter voyage schedules
- Improved operational efficiency
- Enhanced bottom line performance

[See More](#)

# Comprehensive Risk Management

## Security Deposit System

- \$30,000 USD refundable deposit acts as security bond
- Covers potential damage, loss, or extensive repairs
- Aligns incentives for proper equipment use

## Advanced Tracking

- GPS/RFID tracking on every robot unit
- Real-time location monitoring during transit
- Signed liability agreements ensure accountability

## Comprehensive Insurance

- Marine cargo insurance covers transit and handling
- Client responsibility during onboard operation
- 24/7 technical support minimizes damage risk

See More

# Competitive Advantages



## Faster Turnaround

Avoid dedicated cleaning stops and save several days of off-hire compared to traditional methods



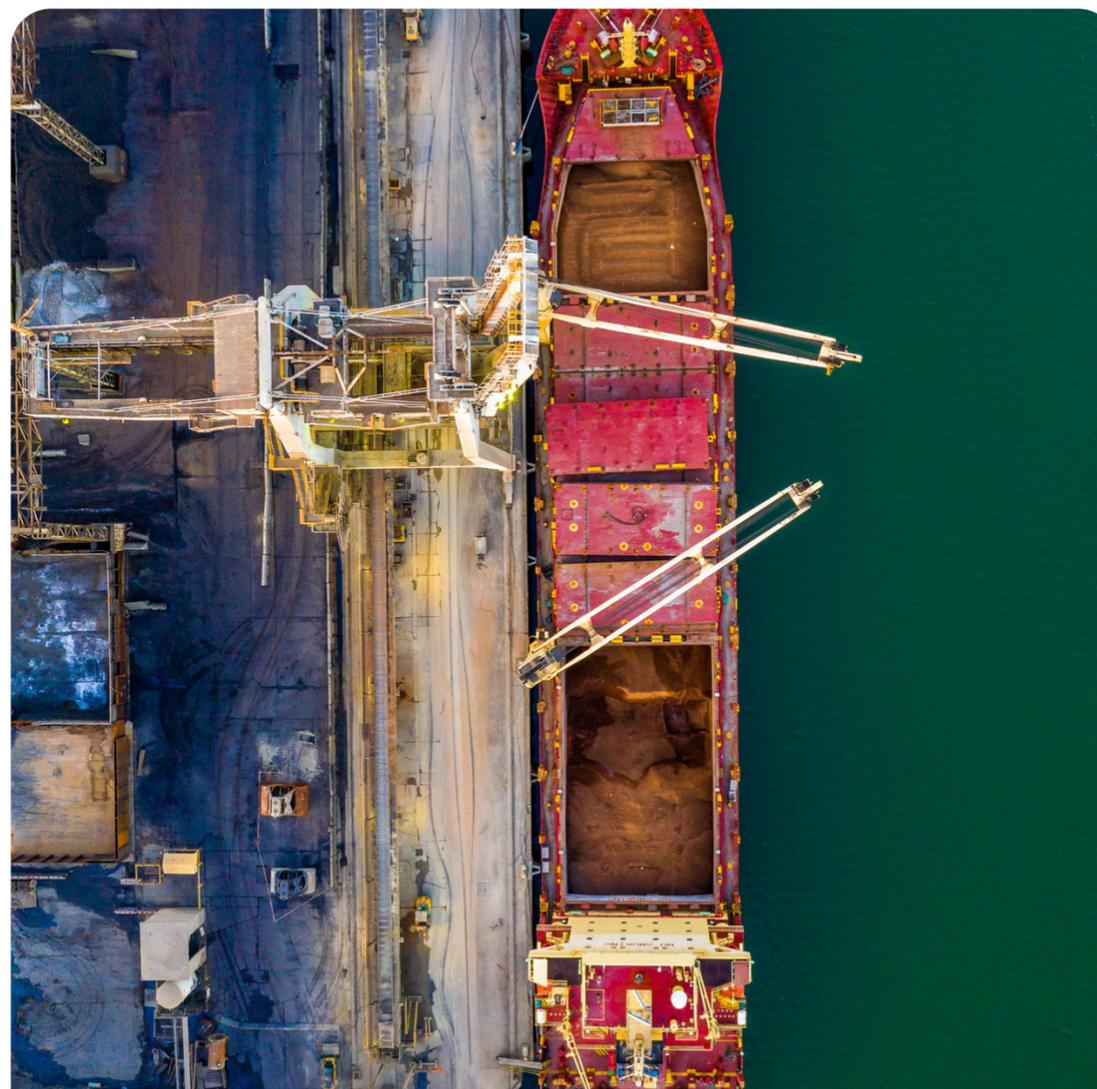
## Global Portability

Air-freight friendly system deploys anywhere - rent in Fujairah, return from Singapore, Rotterdam, or elsewhere



## Environmental Solution

Drastically reduced water and chemical use helps meet environmental targets while ensuring crew safety



## Flexible Options

Choose dry rental for crew operation or wet rental with expert technician - adaptable to your needs



## No Capital Investment

Access latest robotic technology on demand without upfront costs, maintenance, or depreciation



# Scalability & Future Network

[See More](#)

1

## Current: UAE Hub

Primary operations based in Dubai/Fujairah with full service capabilities

2

## Phase 2: Singapore Expansion

Regional hub for Asia-Pacific trade routes with local warehousing

3

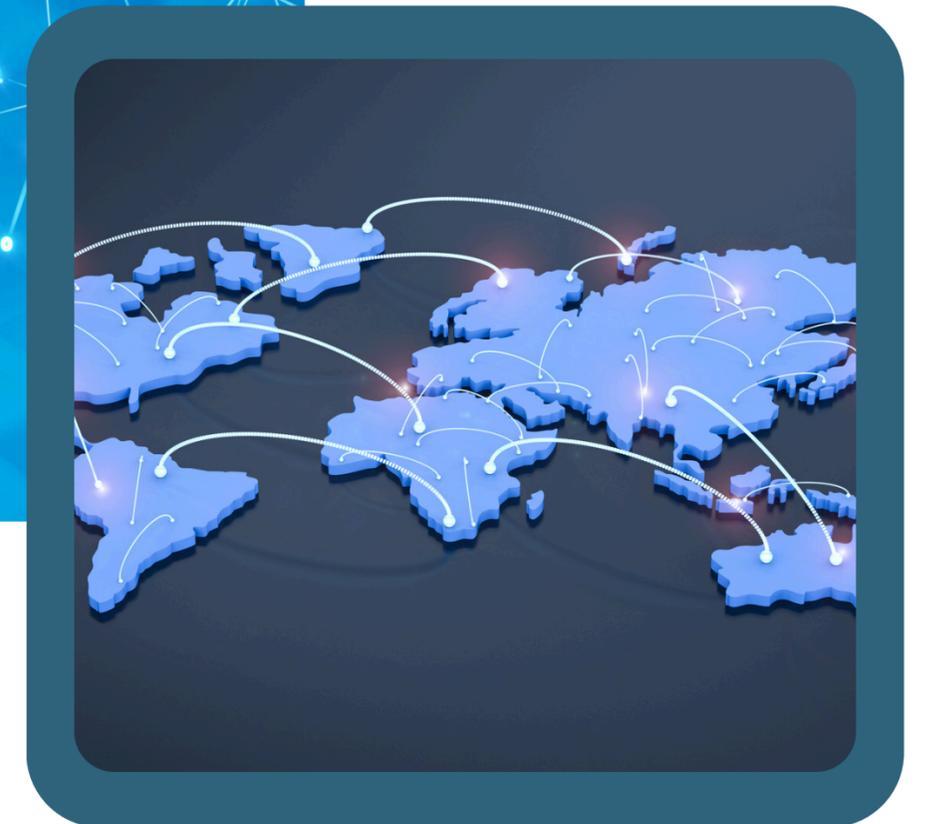
## Phase 3: Rotterdam Hub

European operations center serving major European ports

4

## Phase 4: Houston Hub

Americas coverage completing global network



## Digital Platform Features

- Digital paperwork and payments
- Progress monitoring and updates
- Online booking and management portal
- Real-time tracking dashboard



# Transform Your Hold Cleaning Today

## The Solution

Faster, safer, more cost-effective cargo hold maintenance through robotic technology

## The Benefits

Increased laden days, lower operational costs, minimal schedule disruption

## The Model

Pay-as-you-go rental eliminates capital expenditure while maximizing efficiency

## Ready to Get Started?

Our UAE-based robotic cleaning unit is available now to boost your fleet's efficiency and compliance. Contact us today for:

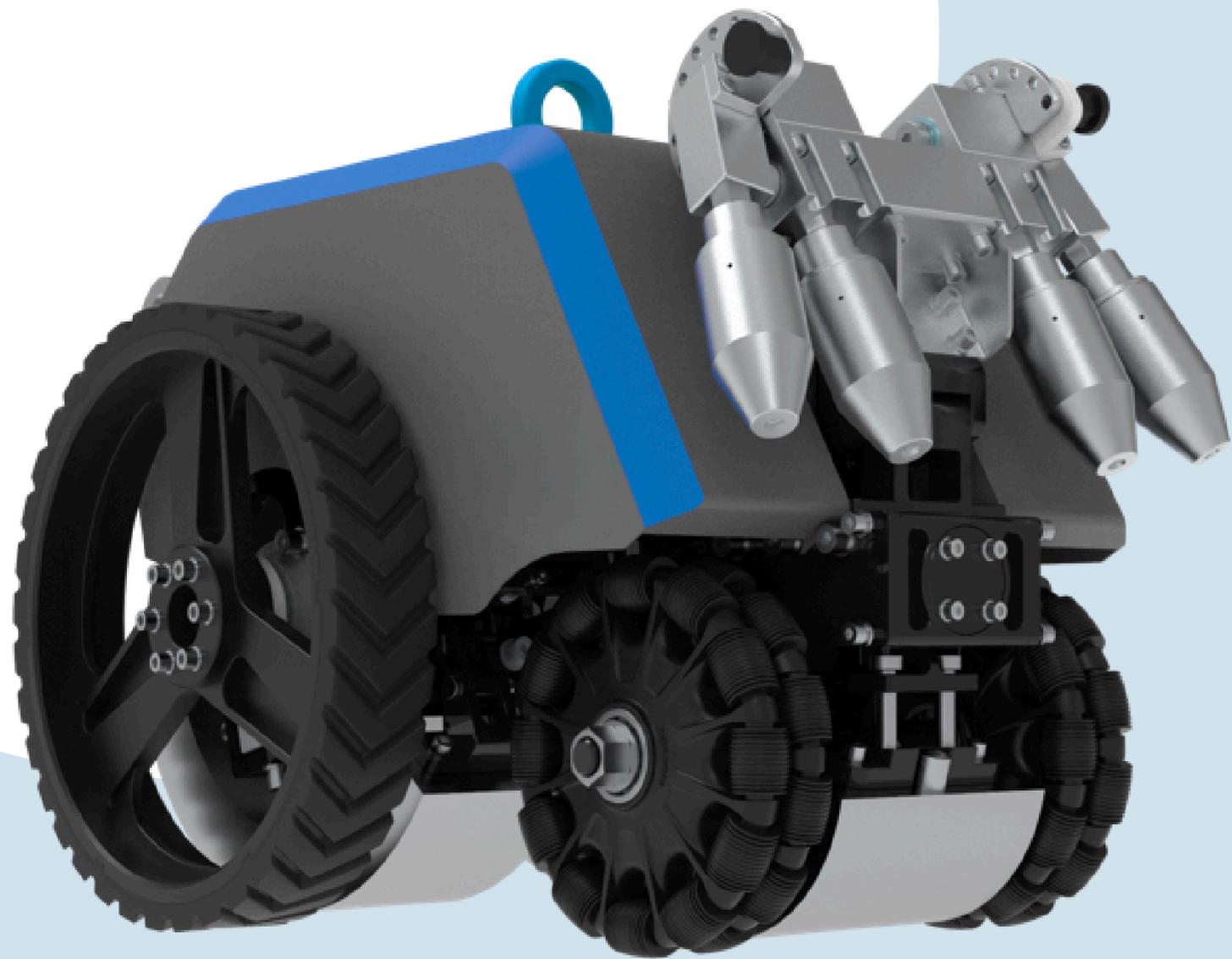
- Rental inquiries and availability
- Live demonstration scheduling
- Tailored quotes for your operations
- Technical specifications and training

**"Turn hold cleaning from a headache into a competitive advantage for your shipping business!"**

[Contact us Today](#)

[See Demo](#)





**THANK YOU**