



BUKATECH

WHO ARE WE?

As BukaTech R&D Engineering and Consulting Inc., we develop innovative solutions focused on sustainability and environmental protection. We design eco-friendly robots capable of cleaning liquid and solid pollutants on the sea surface, removing underwater mucilage, and performing underwater damage detection.

Founded with the support of TÜBİTAK 1512 Green Call, our company plays a leading role in the field of environmental technologies, combining technology and innovation to create sustainable impact.

For us, sustainability is not a choice but a responsibility. With the purpose of preserving the balance of nature, we bring together technology and innovation to protect our planet.

THE BUKATECH TRILOGY



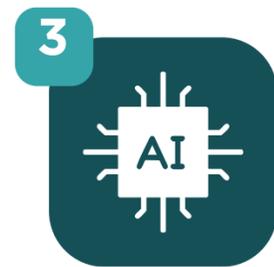
Industry

BukaTech offers industrial solutions that combine environmental sustainability with high efficiency.



Nature

While carrying nature into the future, we build our technology on sustainability.



Artificial Intelligence

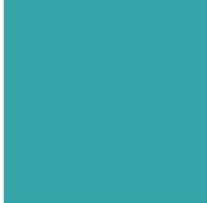
The artificial intelligence technology in our products maximizes efficiency and accuracy in every operation.

The background of the image is a traditional marbled paper pattern, featuring intricate, swirling designs in shades of light blue, grey, and white. A solid, dark teal horizontal bar is positioned across the center of the image, serving as a backdrop for the text.

Problems



Problems

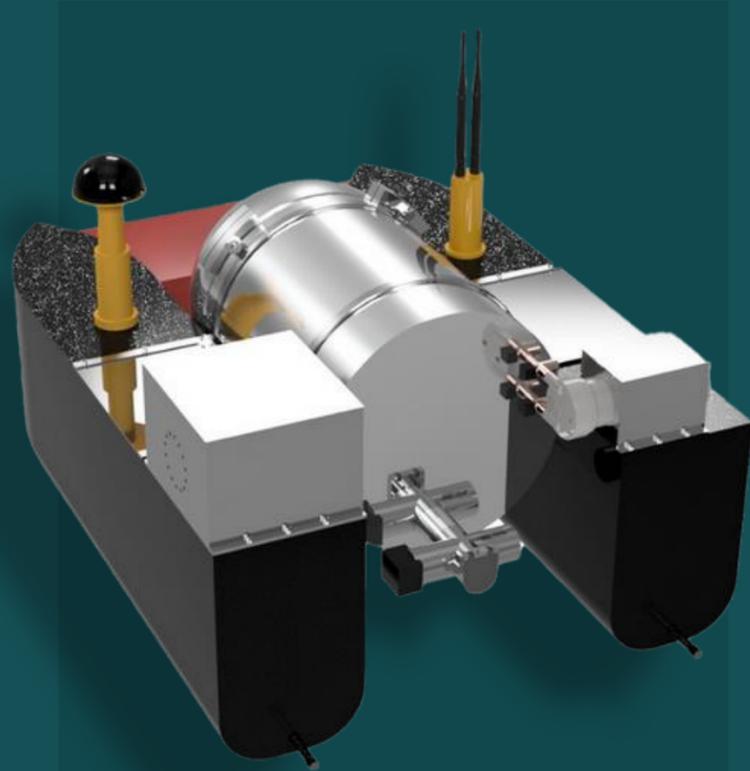
- **Pollution in the seas:** Every year, millions of tons of plastic, oil, fuel, and mucilage mix into the oceans. This pollution damages the ecosystem and causes major economic losses to the fishing and tourism industries.
 - **Safety issues of underwater structures:** Structures such as dams, ports, and bridge piers cannot be inspected regularly. Damage detection processes are often costly, time-consuming, and risky.
 - **Coastal and beach pollution:** Waste accumulating on beaches reduces tourism value, while manual cleaning efforts by local authorities remain insufficient.
 - **Operational challenges in disaster zones:** During earthquakes, floods, and tsunamis, there is a lack of search and rescue robots capable of operating seamlessly across land and water. Current solutions are designed for single environments, causing time loss and operational disruption.
 - **International competition:** In Europe, environmental and disaster-response robotics technologies are rapidly advancing. In Turkey, domestic and original solutions remain limited, leading to high dependence on imports.
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An aerial photograph of a coral reef system. The water is a deep blue, and the coral structures are visible in shades of orange, red, and brown. A dark teal rectangular box is overlaid on the center of the image, containing white text.

Product / Project Portfolio

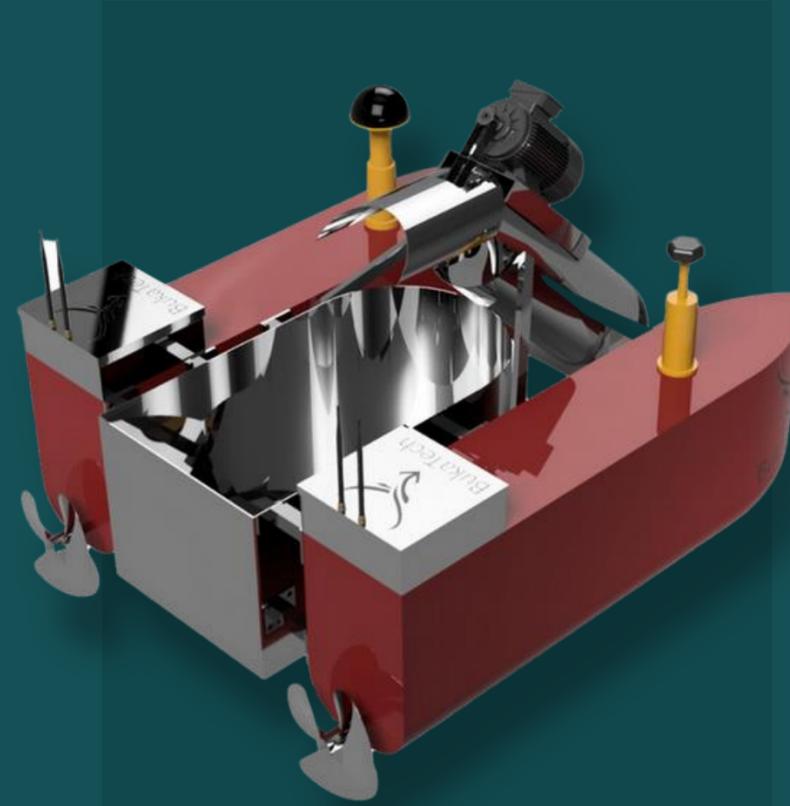


Sea Surface Cleaning Robots



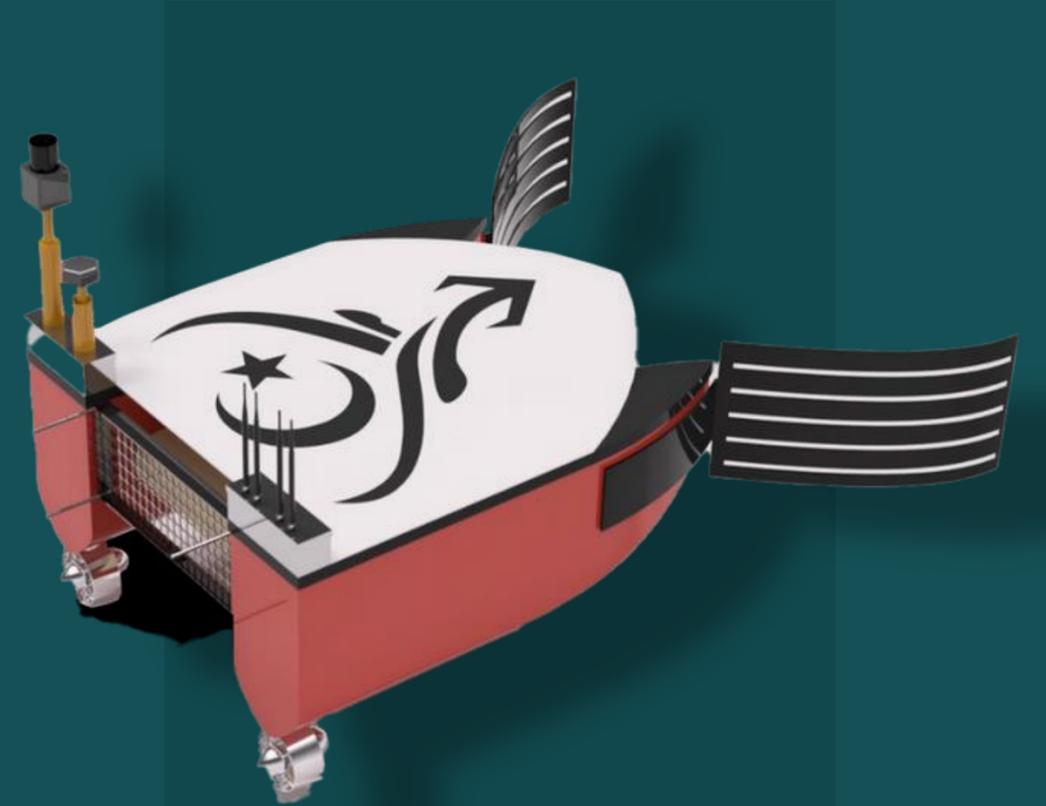
TAMUK.

SEA SURFACE LIQUID-
LIQUID HETEROGENEOUS
MIXTURE CLEANING ROBOT



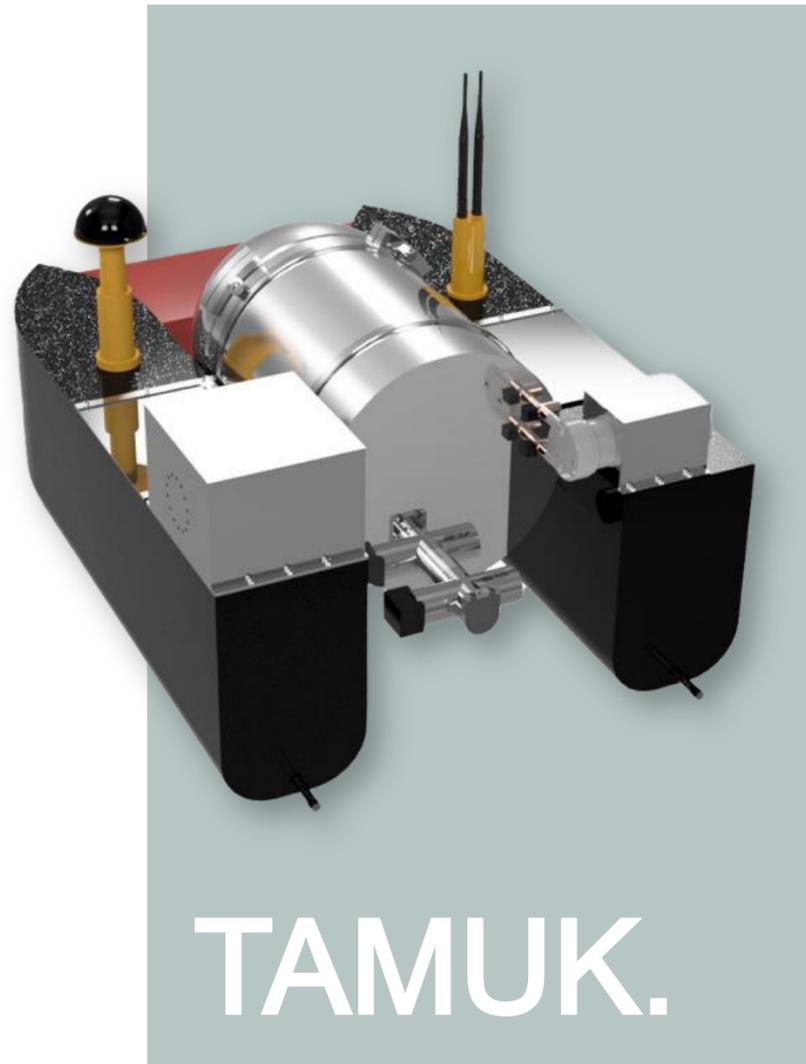
KÜNÇ.

SEA SURFACE SOLID WASTE
CLEANING ROBOT



ÇOGUN.

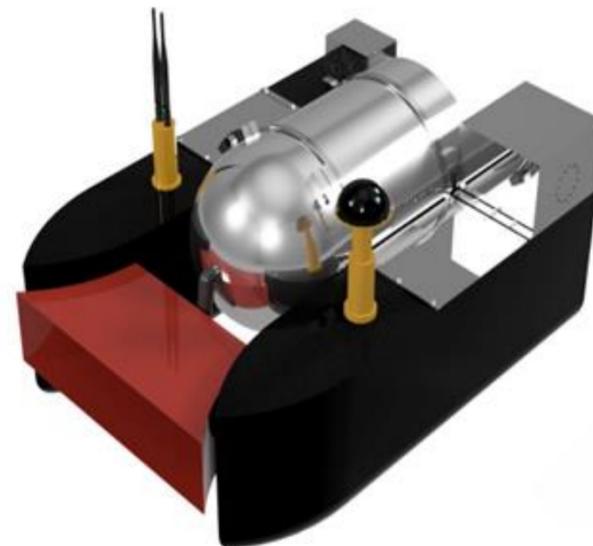
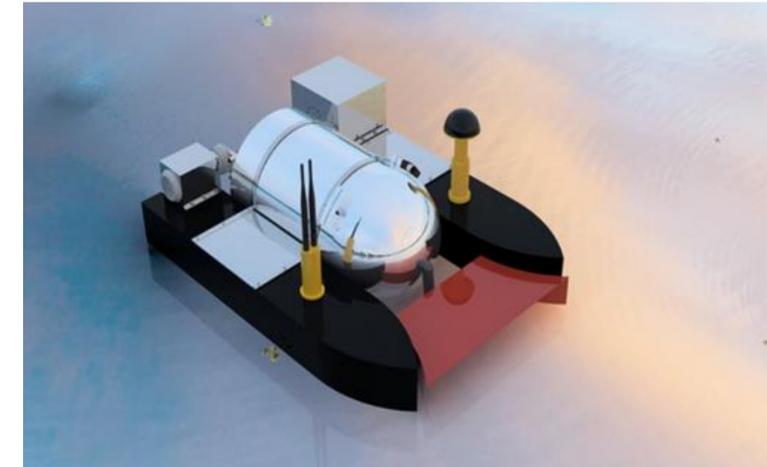
SEA SURFACE SOLID WASTE
CLEANING ROBOT



TAMUK.

**SEA SURFACE LIQUID-
LIQUID HETEROGENEOUS
MIXTURE CLEANING ROBOT**

- Tamuk is an ideal emergency response robot designed to quickly and effectively clean liquid pollutants (oil, fuel, petroleum, and mucilage) on the sea surface.
- Operating entirely through mechanical methods, Tamuk minimizes environmental impact and accelerates the cleaning process.
- Without using chemical dispersants, liquid pollutants are collected and separated efficiently inside the storage unit. The system placed within the tank provides a special environment that separates pollutants from seawater effectively.

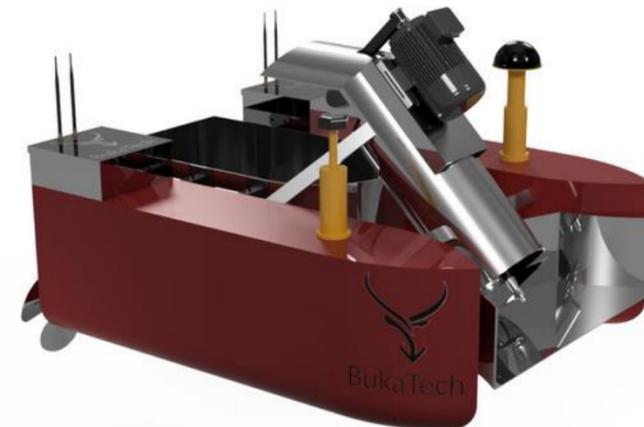


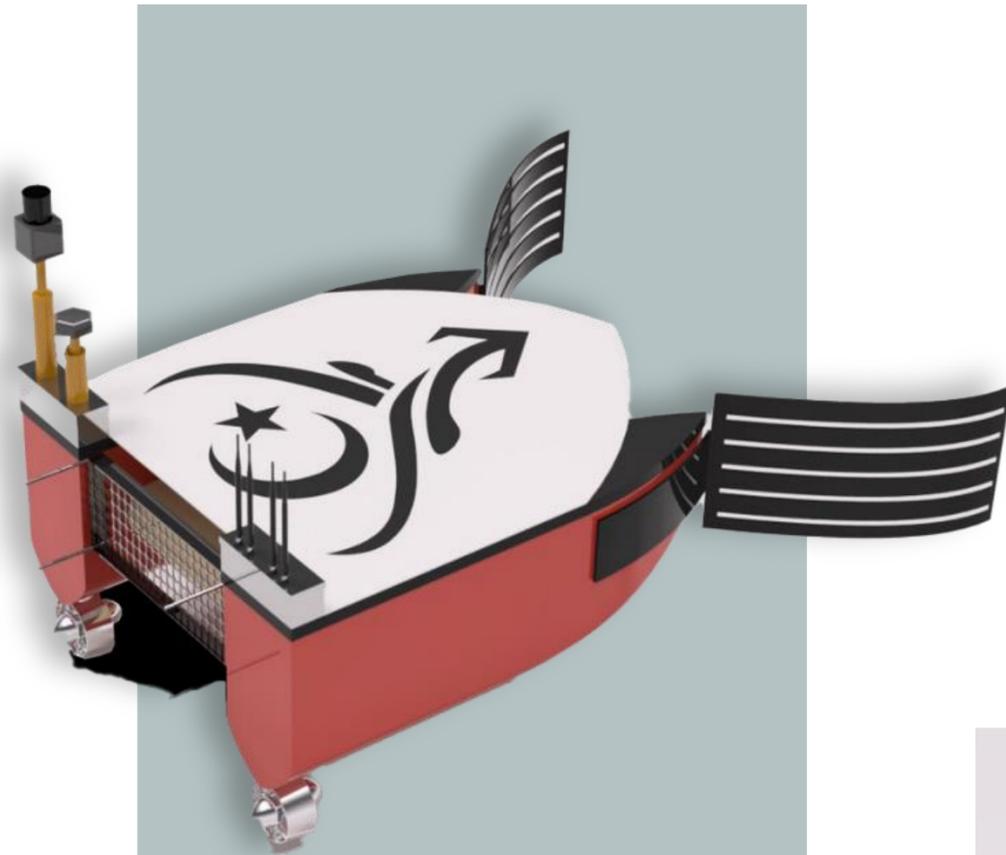


KÜNÇ.

SEA SURFACE SOLID
WASTE CLEANING ROBOT

- KÜNÇ is a robot designed to quickly and effectively clean solid waste (such as plastic, packaging, and wood) floating on the sea surface.
- It becomes active especially in ports and coastal areas where large amounts of solid waste accumulate, helping to reduce environmental impact and accelerate the cleaning process.
- Thanks to the helical conveyor system mounted on top, it can perform cleaning operations without missing small or large debris, ensuring thorough and efficient waste collection.

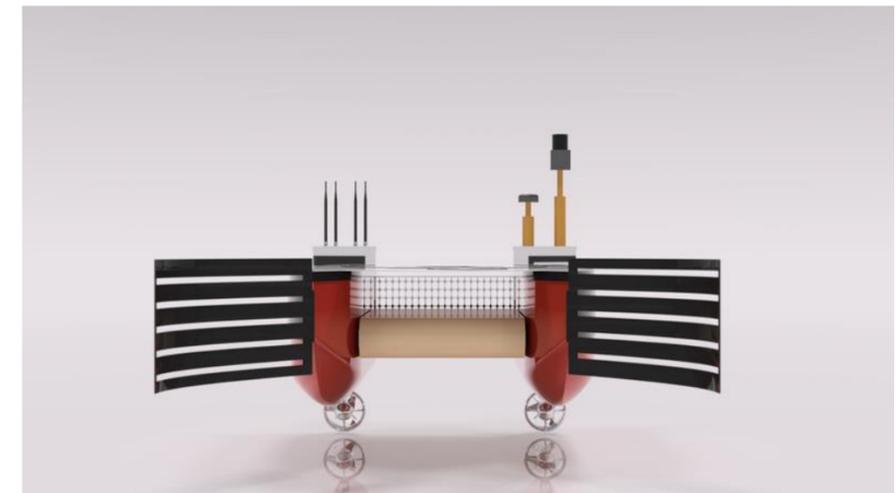
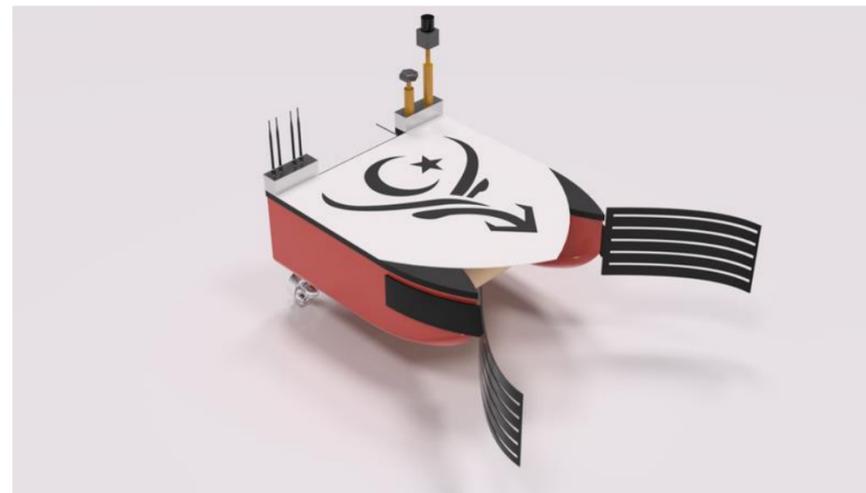




ÇOGUN.

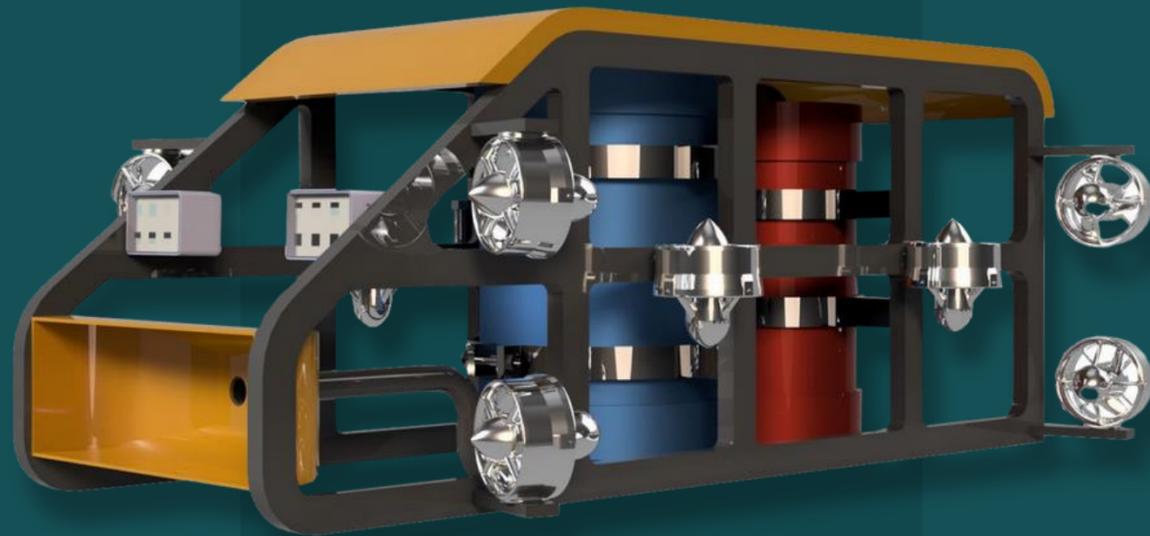
SEA SURFACE SOLID
WASTE CLEANING ROBOT

- Çogun is a robot designed to quickly and efficiently clean solid pollutants (such as plastic, packaging, and wood) from the sea surface.
- It becomes particularly effective in ports and coastal areas where large amounts of solid waste accumulate, helping to reduce environmental impacts and accelerate the cleaning process.
- Equipped with a flat conveyor system, Çogun collects solid waste through its front intake and pushes it toward the rear section, where it is stored in a mesh-based storage unit. This system allows for effective collection and containment of waste during operation.





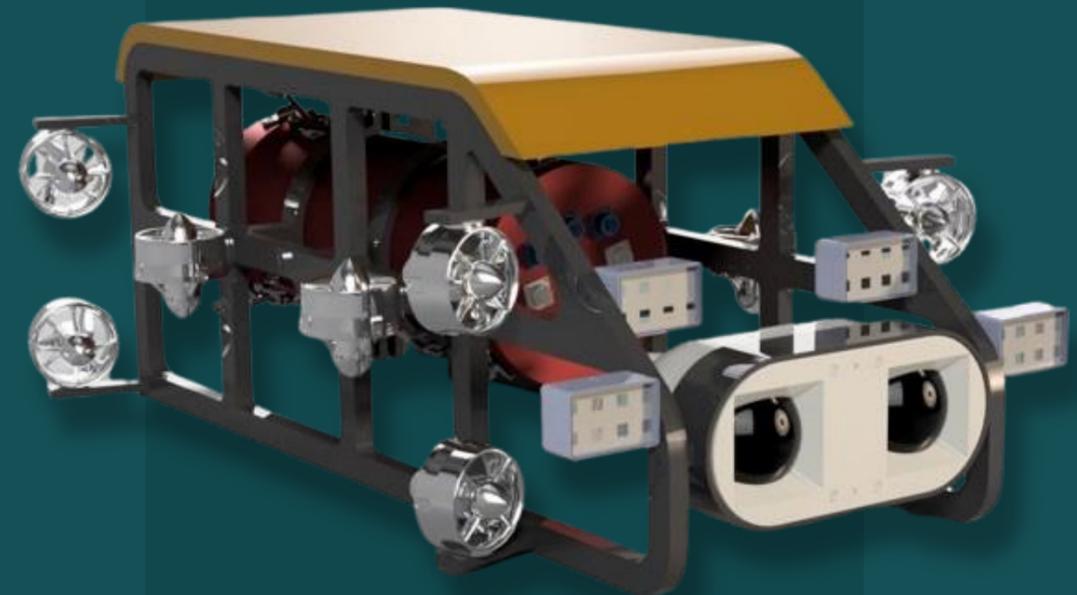
Underwater Robots



YANGA.

UNDERWATER MUCILAGE

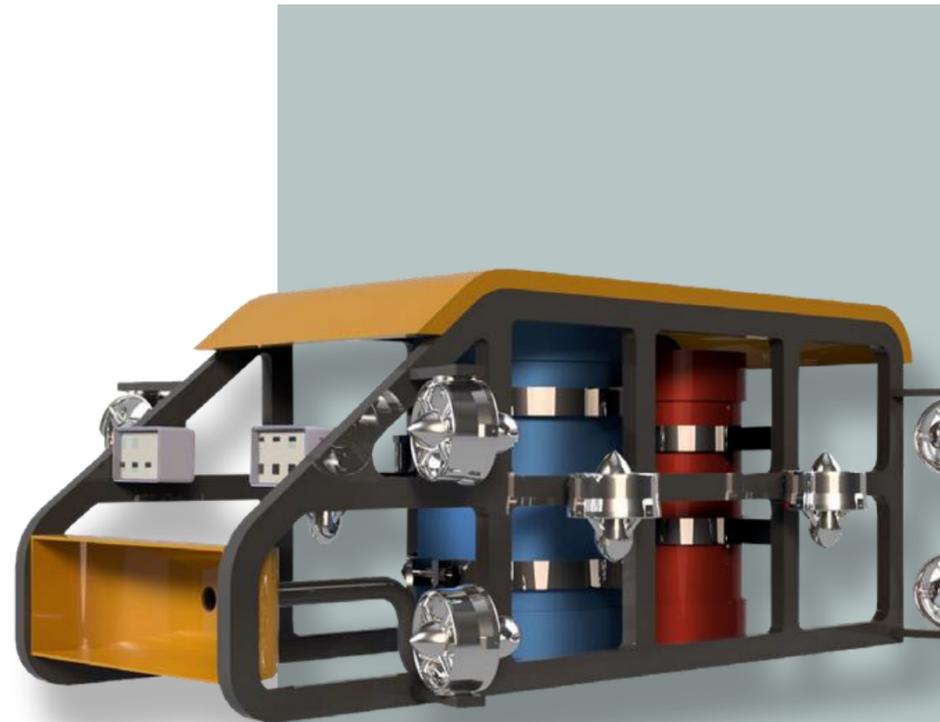
CLEANING ROBOT



ARKUT.

UNDERWATER RESEARCH AND

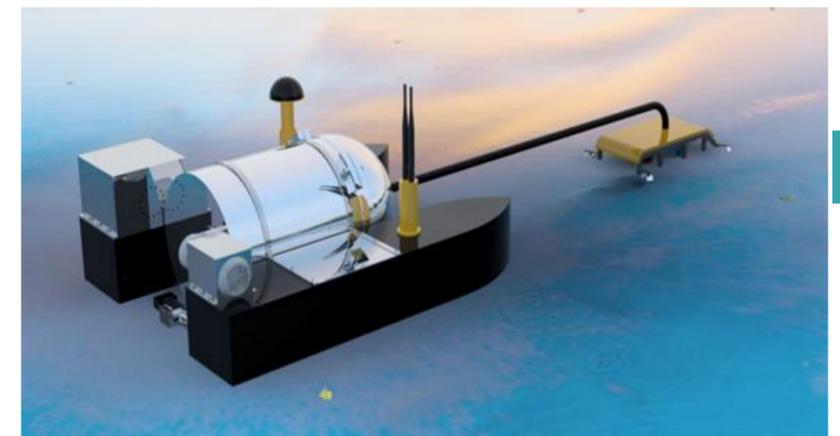
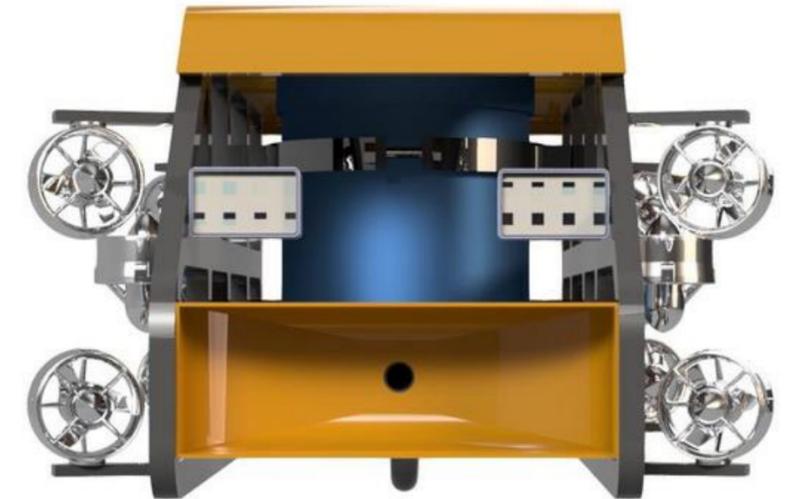
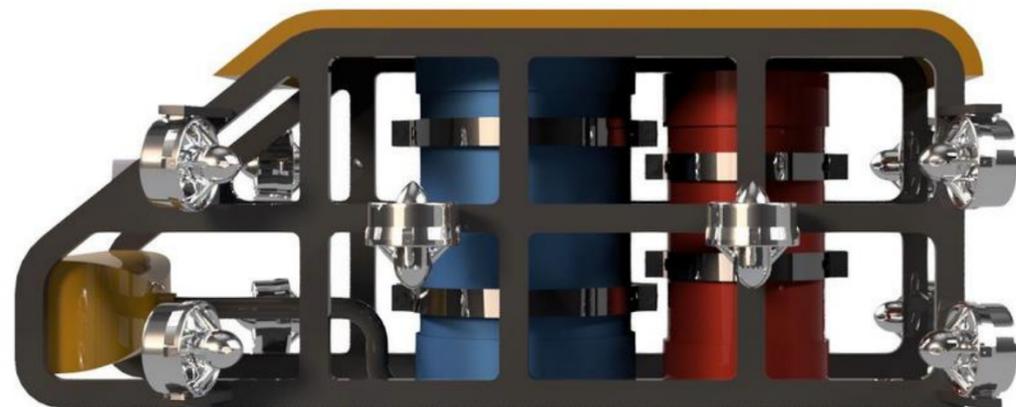
DAMAGE DETECTION ROBOT

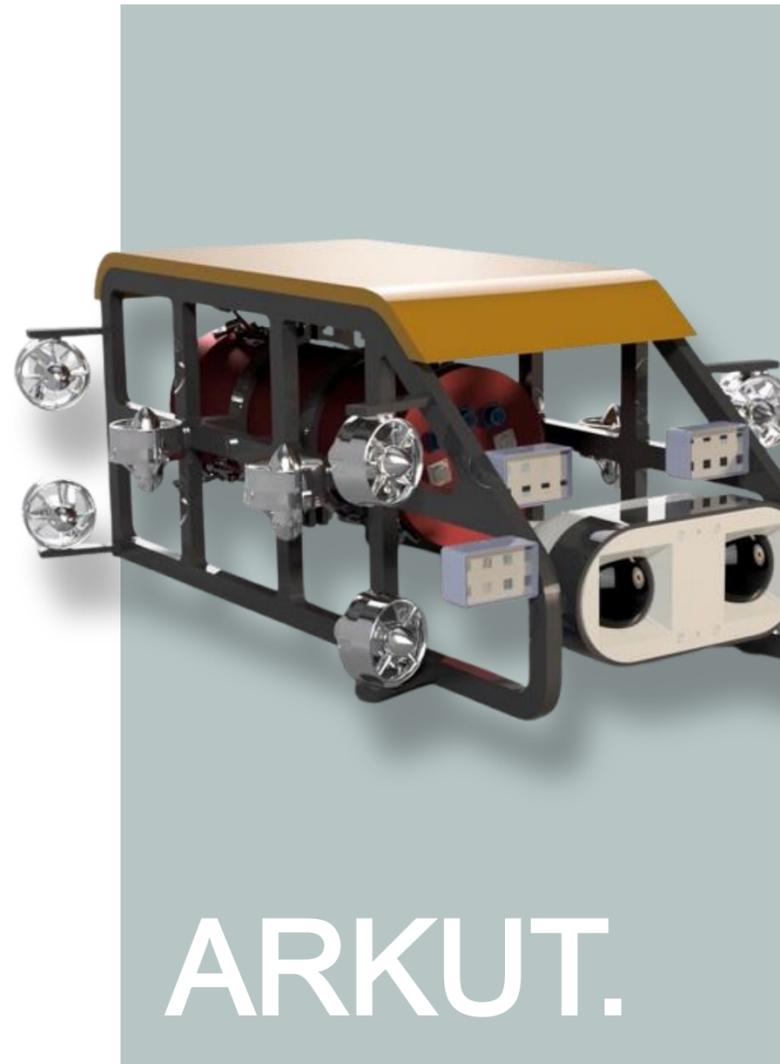


YANGA.

UNDERWATER MUCILAGE
CLEANING ROBOT

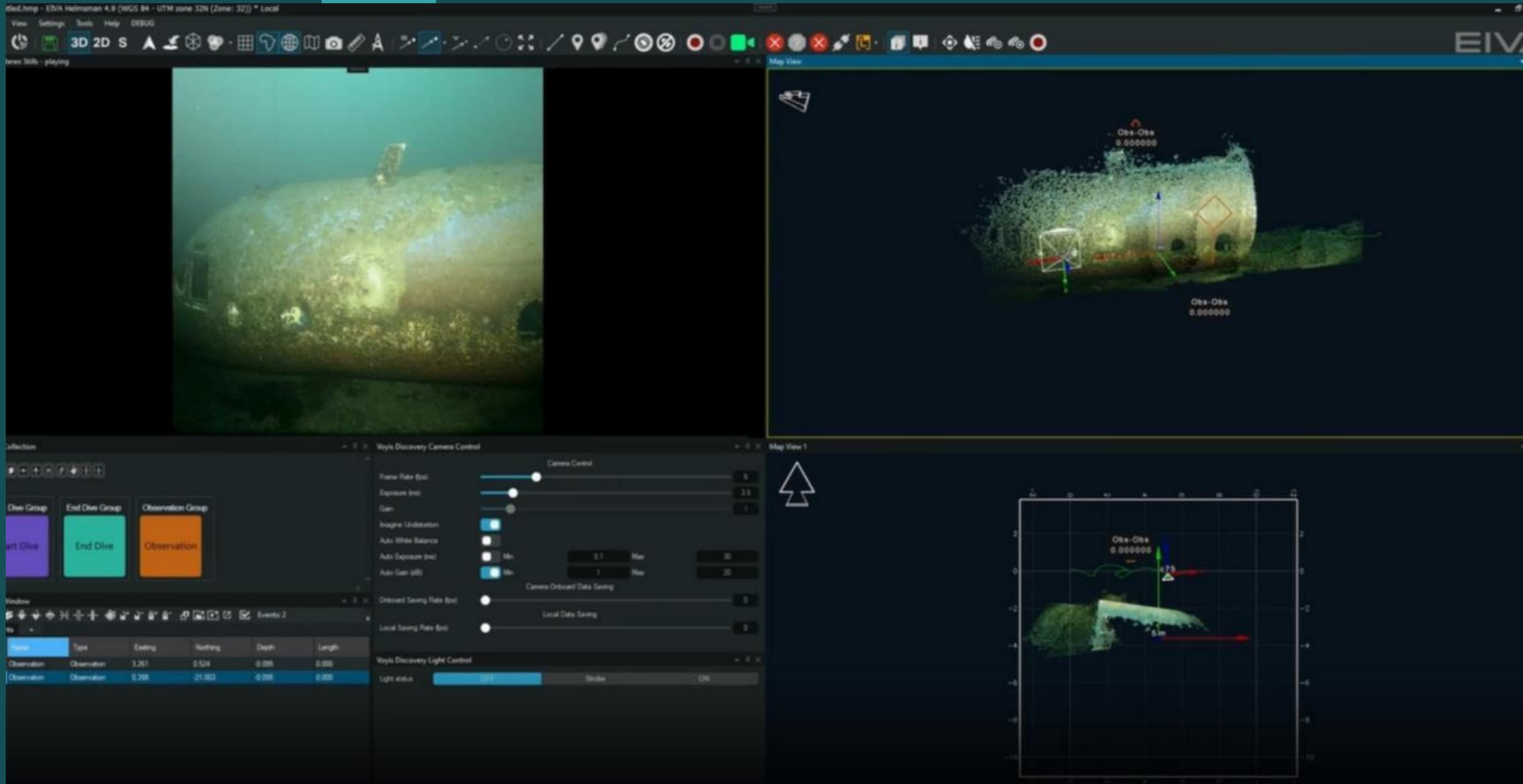
- Yanga is an ideal intervention robot designed to quickly and effectively clean mucilage pollution underwater.
- Operating entirely through mechanical methods, Yanga minimizes environmental impact and accelerates the cleaning process.
- With its integrated swarm drone technology, it provides the ability to intervene across wide underwater areas effectively.

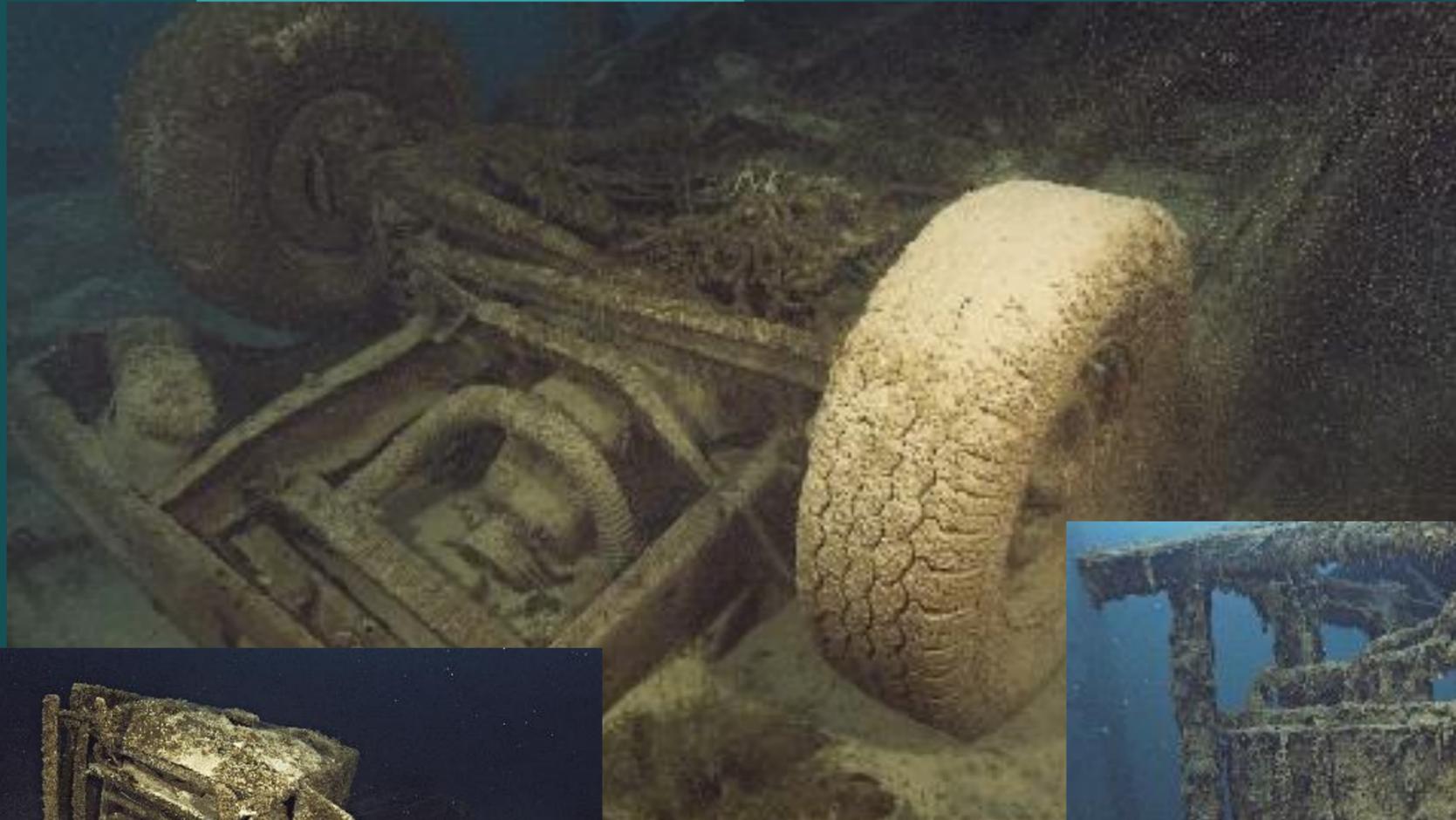




UNDERWATER RESEARCH AND
DAMAGE DETECTION ROBOT

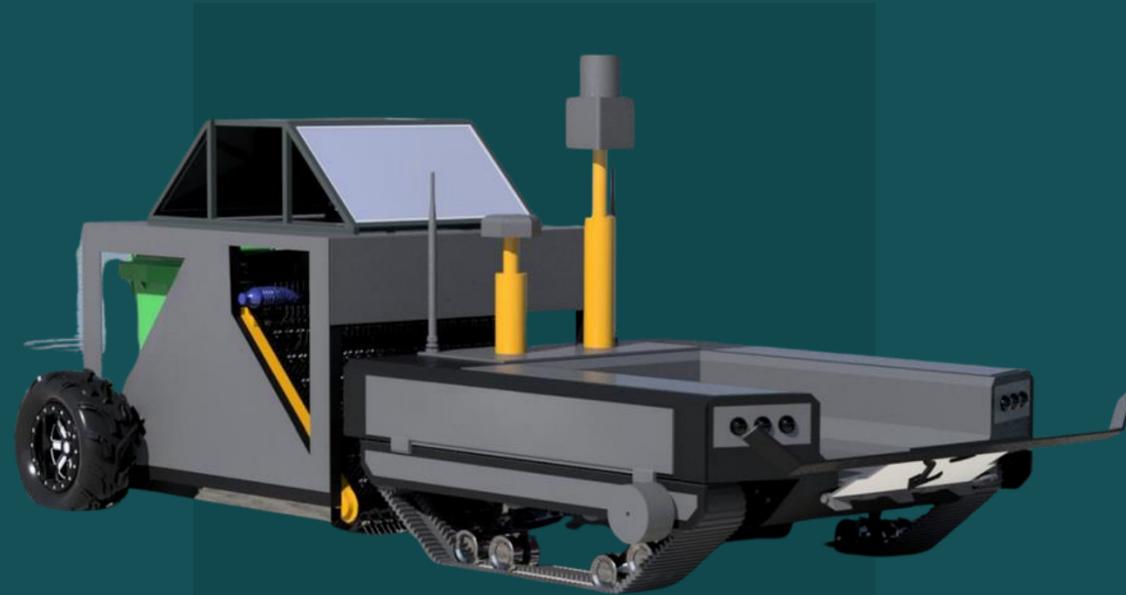
- Arkut is an underwater damage detection robot equipped with high-resolution 3D photogrammetry/videogrammetry and advanced sensors.
- It performs detailed structural damage analysis under challenging underwater conditions, assessing the safety of underwater structures such as dams, ports, and bridge foundations.



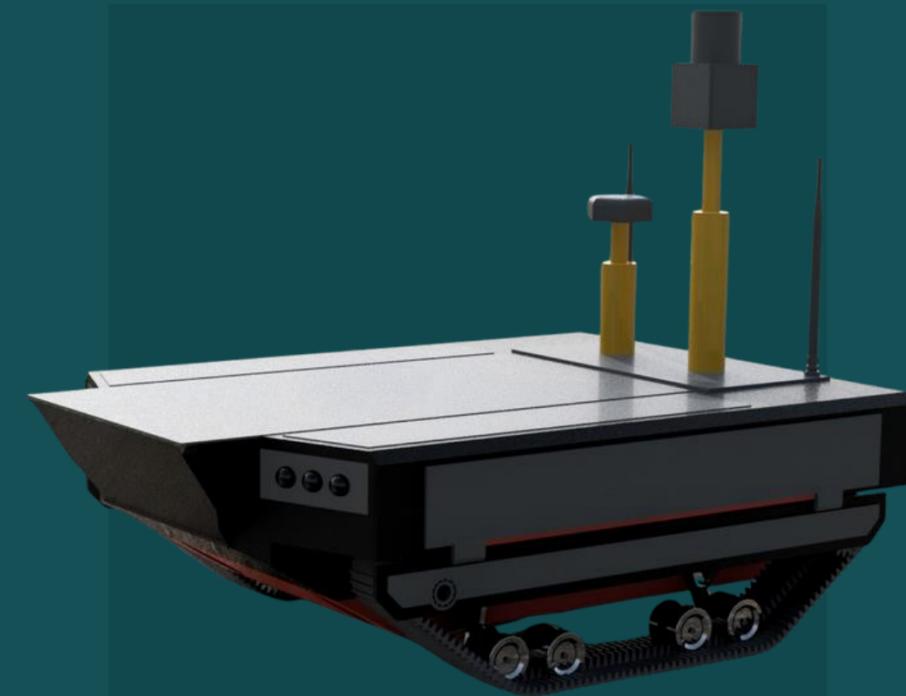




Land Robots



**Beach Cleaning
Robot**

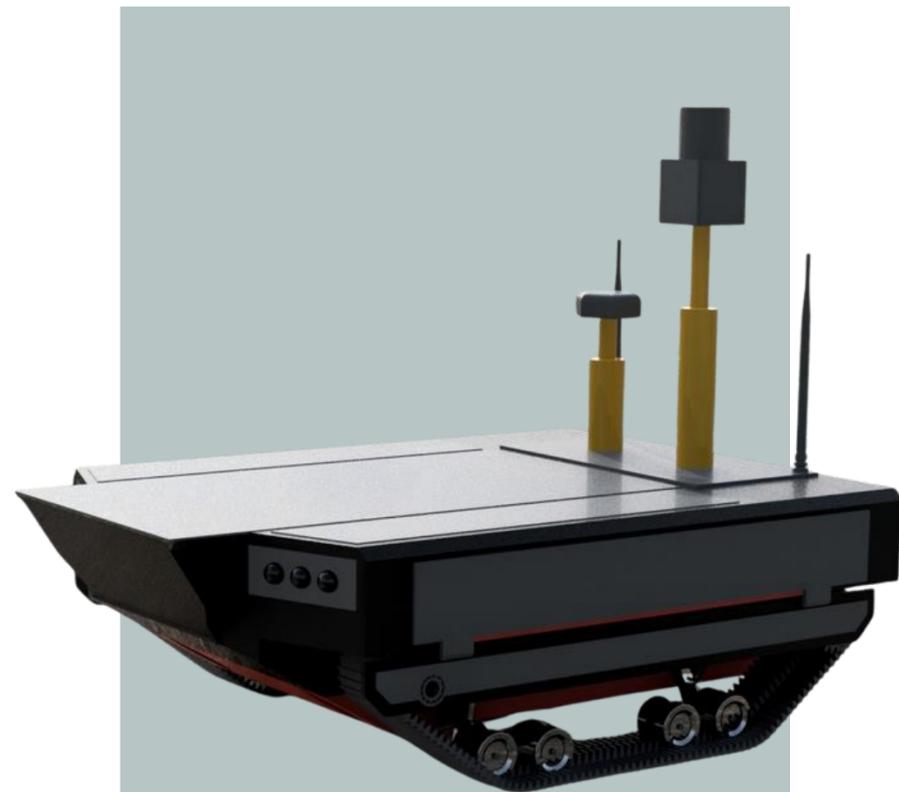


**Amphibious Search
And Rescue Robot**



Beach Cleaning Robot

- The Beach Cleaning Robot is designed to collect plastic, glass, metal, and organic waste accumulated along coastal areas quickly and efficiently, protecting the coastal ecosystem.
- With its autonomous navigation system and obstacle detection sensors, it can clean large beach areas without requiring human intervention.
- Its fully mechanical collection system can reach 10–15 cm below the sand surface, removing microplastics, cigarette butts, and buried debris. Thus, it eliminates not only visible pollution but also hidden contaminants beneath the surface.



ARUMA.

Amphibious Search And
Rescue Robot

- Aruma is an amphibious search and rescue robot capable of operating both on land and in water, designed for high maneuverability under challenging conditions such as floods and disaster zones.
- Its modular structure allows the integration of various sensors such as thermal cameras, LiDAR, and radioactive level detectors, enabling critical missions like human detection, image transmission, and risk assessment.
- It can be equipped with different tools for rescue, transport, evacuation, and payload delivery tasks, minimizing human risk in emergency response operations.



National & International Project Partnership

BukaTech & Model Aerospace

**Unmanned Platforms
and Rocket Launcher
Integration Project**



**EU-HORIZON-CL3-2025-01-DRS-
03**

**EU Horizon Project Call
Consortium Partnership**



BukaTech & Model Aerospace

Unmanned Platforms and Rocket Launcher Integration Project



- Model Aerospace is an innovative defense technologies startup in Turkey that designs and manufactures rockets, rocket propellants, and launch systems (launchers).
- Within the scope of the joint project, the rocket and launcher systems developed by Model Aerospace are being integrated into BukaTech's unmanned land and sea platforms.
- This project aims to develop an innovative robotic system serving the defense industry, enhancing the multi-mission capabilities of BukaTech's unmanned platforms.

**EU-HORIZON-CL3-2025-01-DRS-
03**

**EU Horizon Project Call
Consortium Partnership**



- This EU Horizon project, which we joined upon the invitation of a European research institute, is being carried out under an international consortium of 14 companies.
- Within this consortium, BukaTech has taken on the leadership and management responsibility of a specific work package.
- Due to project confidentiality agreements, details cannot be disclosed at this stage; however, the project aims to develop innovative robotic systems.



Communication Projects

Swarm Drone Technolgy

Swarm Drone Technology

- Through its R&D efforts in swarm drone technologies, BukaTech develops systems that enable simultaneous communication and coordinated operations among multiple unmanned aerial, ground, and marine vehicles.
- Thanks to the autonomous communication protocols developed, the vehicles can exchange data and perform dynamic task allocation among themselves without requiring a central control system.
- This technology aims to ensure high efficiency and uninterrupted communication in multi-agent operations such as search and rescue missions, environmental monitoring, and defense applications.

An underwater photograph showing a diver swimming in the upper middle section of the frame. Below the diver, the remains of a shipwreck are visible, including a large, rusted metal structure that appears to be a staircase or a set of bulkheads. The water is a deep, clear blue, and the scene is lit from above, creating a sense of depth and mystery.

Growth Strategy and Roadmap

Growth Strategy and Roadmap

Short Term (0–1 Year)

- Commercialization of liquid-cleaning robots to institutions responsible for marine disaster management
- Active deployment of sea surface cleaning robots in municipalities and ministries
- Initiation of PoC (Proof of Concept) processes for the beach cleaning robot

Medium Term (1–3 Years)

- Expansion into the European market through EU-funded projects
- Deployment of active and variant models of the robots across EU and Central Asian countries via established networks
- Initiation of PoC processes for the project developed in collaboration with Model Aerospace under the Presidency of Defense Industries (SSB)

Long Term (3–5 Years)

- Increase export volume of robots in the defense, environmental, disaster, and logistics sectors
- Ensure global market impact of swarm drone technology in both environmental cleaning and defense applications

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