

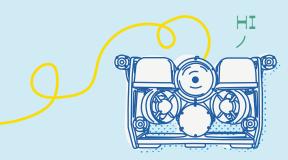




Break down the ABCs with uncrewed marine vehicles

Marine Vehicles Uncrewed

MA3T2



Explore the depths of the sea and the vehicles that journey through them with the ABCs of Uncrewewd Marine Vehicles!!

Did you know that giant tube worms, AKA Riftia Pachyptila, were discovered in 1977 while exploring the Galapagos hydrothermal vents by the ROV Alvin? Yeah, neither did we.

ROVs, AUVs, and USVs help us understand what lies beneath, and each vehicle is uniquely special, with it's own set of capabilities and functions.

Let's dive in!

USU uncrewed surface vessel The Sunlight Zone **Epipelagic Zone** SCUBA Diver 200m The Twilight Zone Mesopelagic Zone ROV remotely Octopus operated vehicle 1000m The Midnight Zone Mesobot **Bathypelagic Zone** Anglerfish Giant Isopod SuBastian 4000m The Abyss Abyssopelagic Zone Atolla Jellyfish Kaiko 6000m The Trenches Hadal Zone AUV autonomous uncrewed vehicle 11000m

Argus (ROV)

Made by: Nautilus Ocean Exploration Trust Depth Rating: 4000m

Fun Fact: Hovers above the ROV Hercules during deep dives.

BlueROV2 (ROV)*

Made by: Blue Robotics Depth Rating: 300m

Applications Inspections, research, adventuring

- options are nearly limitless!

Chinook (ROV)*

Made by: Seamor Marine Depth Rating: 600m

Fun Fact: Has fished 630kg of ghost gear out of

the ocean.

Defender (ROV)*

Made by: VideoRay Depth Rating: 1000m

Applications: Dangerous or heavy-duty

Fun Fact: Used by the US Navy.

Eelume M-Series (AUV/ROV)*

Made by: Eelume

Depth Rating: 500m

Fun Fact: Sensor or tool carrier AKA "Snake Lego"

Falcon (ROV)*

Made by: Saab Seaeye

Depth Rating: 300m

Fun Fact: Assists in "Flying Kites Underwater"

Gulper (AUV)

Made by: MBARI

Fun Fact: Designed to rapidly aquire multiple large-volume seawater samples at distinct

locations.

HD3 (ROV)*

Made by: JM Robotics

Depth Rating: 300m

Fun Fact: Chevron's newest tool for subsea inspections.

Icefin (ROV/AUV)

Made by: PI Schmidt, Georgia Tech, Cornell

University

Depth Rating: 1000m

Fun Fact: Deployed through ~600m hot water drilled boreholes to investigate the grounding zones of Thwaites Glacier and the Ross Ice

Shelf.

Jason (ROV)

Made by: WHOI

Release Year: 1988 (1st Gen); 2002 (2nd Gen) Fun Fact: Part of a two-body system with

Madea with a successful side career in underwater archeology.

Kaiko (ROV)

Made by: JAMSTEC

Depth Rating: 4500m

Fun Fact: Lost at sea after conducting more than 250 dives and collecting 350 biological

LarvalBot (ROV)

Made by: QUT

Applications: Regenerates reefs by distributing coral larvae

Mesobot (ROV/AUV)

Made by: WHOI x MBARI

book written about it.

Depth Rating: 1000m Fun Fact: Collects eDNA and has a childrens'

Depth Rating: 11000m Applications: Designed to explore Challenger

Orpheus (AUV)

Nereus (ROV/AUV)

Made by: WHOI

Made by: WHOI

Release Year: 2018

Depth Rating: 11000m

Applications: Systemic exploration and sample collection in the Hadal Zone.

Poodle (ROV)

Made by: Dimitri Rebikoff

Release Year: 1953

Applications: Developed for divers and

photography

Fun Fact: The First ROV!

Q-Boat 1250 (USV)*

Made by: Teledyne Marine Fun Fact: Designed specifically for shallow

water applications.

Revolution (ROV)* Made by: Deep Trekker

Depth Rating: 305m

Applications: Search & recovery, inspection, monitoring.

SuBastian (ROV)

Made by: Schmidt Ocean Institute

Depth Rating: 4500m

Fun Fact: Built specifically for ocean science off of Research Vessel Falkor.

Theseus (AUV)

Made by: QUT

Applications: Arctic defense research

Urashima (AUV)

Made by: JAMSTEC

Depth Rating: 3500m

Fun Fact: Started its life as an experimental

vehicle.

Ventana (ROV)

Made by: MBARI

Applications: Benthic work, sampling,

environmental studies, experiments.

Wave Glider (USV)*

Made by: Liquid Robotics (Boeing)

Applications: Converting wave motion into

propulsion, defense, security, environmental

assessment.

X3 (ROV)*

Made by: Blueye Robotics Depth Rating: 305m

Applications: Inspections, underwater

operations

Fun Fact: Captured the first public footage of the damaged pipeline Nord Stream 1.

YUCO-Scan (AUV)*

Made by: SEABER

Depth Rating: 300m

Fun Fact: The first micro-AUV to successfully

cross the English Channel.

Zeno (ROV/AUV)*

Made by: MDM Team

Depth Rating: 100m

Applications: Surveys, inspections.

*vehicles you can actually buy!