CIUOT

Robot Demonstration

# MAKI LAB.

## [Future Platform Systems for Underwater Observation]

Center for Integrated Underwater Observation Technology

Underwater Platform Systems

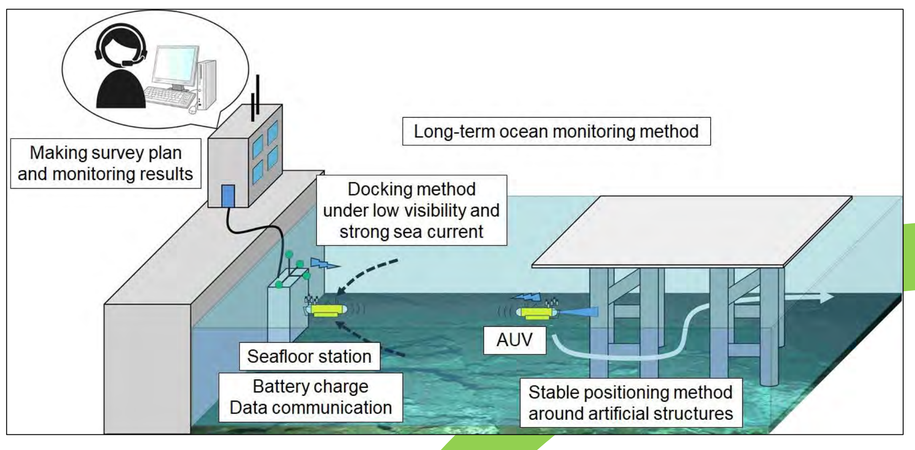
Graduate School of Frontier Sciences

Department of Ocean Technology, Policy and Environment

http://makilab.iis.u-tokyo.ac.jp/

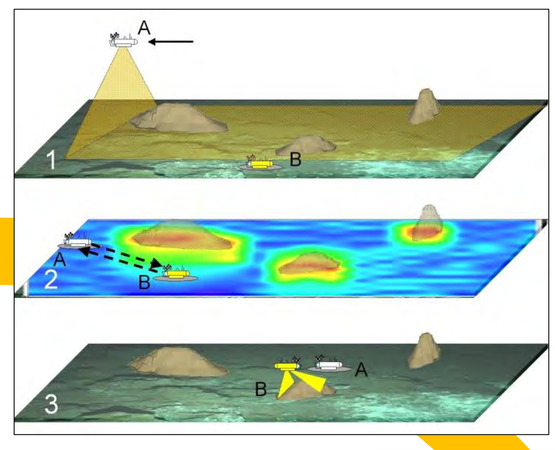
## Future Platform Systems for Underwater Observation

We are developing new systems for underwater observation by means of latest technologies of robotics and informatics. These systems will realize wide-area, high-accuracy, and long-term observation through collaboration of multiple autonomous agents like autonomous underwater vehicles (AUVs).



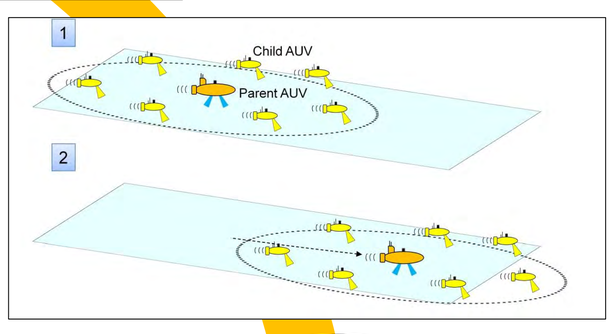

**Long-term monitoring of artificial structures using seafloor station and AUV**

**Resident AUV**

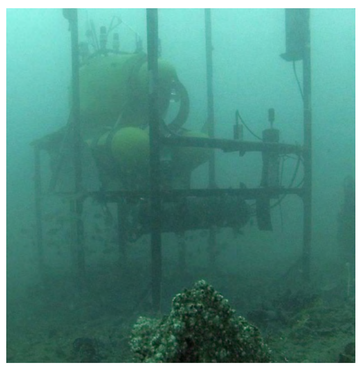



**Cooperative survey by multiple AUVs**

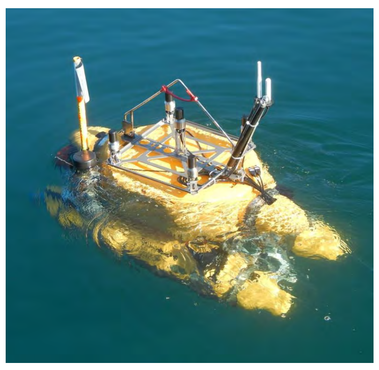
**Cooperative positioning based on acoustic network**




**Multiple AUVs**



**Station Type B**

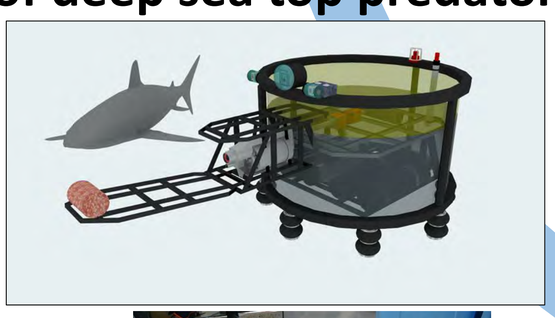


**AUV Tri-TON 2**

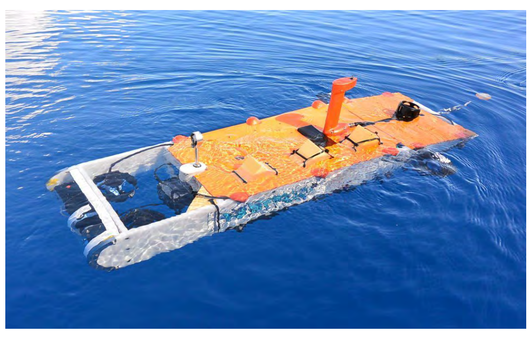
**AUV Tri-TON**

**Biological Observation**

**In-situ biopsy system of deep sea top predators**



**Station Type C**

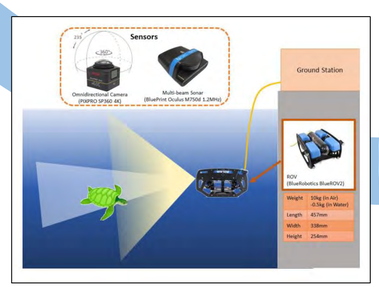


**AUV HATTORI**

**AUV Tri-Dog 1**

**Method for tracking omni-directional surface**

**Measuring ocean wind and detecting animals by UAVs**




**Detecting and tracking underwater animals**

**Small and High-speed AUV**

**Underwater drone**