





Underwater inspections and monitoring | Confined space inspections | Seabed surveys | Resident ROV/AUV | Engineering | Tau Autonomy Center | Smart Ocean Tooling

To provide a summary of the services provided by Remotely Operated Vehicles (ROVs) and Autonomous Underwater Vehicles (AUVs) to offshore aquaculture, we need to understand their roles and capabilities in this industry.

- **1. Remotely Operated Vehicles:** ROVs are unmanned underwater vehicles that are controlled by an operator on the surface. Services provided by ROVs in offshore aquaculture include:
 - Inspection and maintenance of underwater structures such as fish cages, pipelines, and nets.
 - Monitoring water quality parameters and environmental conditions.
 - Conducting surveys to assess fish health, behaviour, and biomass.
 - Assisting in the installation and repair of aquaculture equipment.
 - Collecting data for research and analysis purposes.
- **2. Autonomous Underwater Vehicles:** AUVs are unmanned underwater vehicles that operate autonomously without real-time control. Services provided by AUVs in offshore aquaculture include:
 - Mapping and surveying large underwater areas with high resolution and accuracy.
 - Monitoring water quality, temperature, salinity, and other parameters over extended periods.
 - Collecting data on ocean currents, marine life distribution, and habitat characteris-
 - Conducting environmental assessments and detecting potential risks to aquaculture operations.
 - Supporting research activities by collecting scientific data and samples from the underwater environment.

In summary, ROVs and AUVs play crucial roles in supporting offshore aquaculture operations by providing essential services such as inspection, maintenance, monitoring, surveying, and data collection. Their use enhances efficiency, accuracy, and safety in managing aquaculture facilities in offshore environments.