

MIRIAM – Multimodal Intelligent inteRation for Autonomous systeMs

Building Trust in Human-Robot Teams



MIRIAM is a conversational interface being developed to manage and monitor autonomous Unmanned Vehicles (UxVs) as they work independently, in teams or in swarms to carry out their missions.

MIRIAM enables operators, pilots and technicians of autonomous UxVs to interrogate the systems' actions, state of health and mission status in real time through natural language, allowing users to ask 'on-demand' queries and explanations of behaviour.

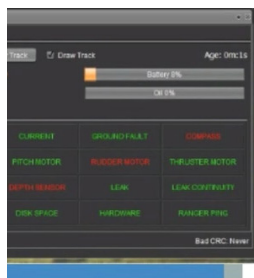
Interaction can be in the form of a 'group chat' with the MIRIAM personal assistant, through voice interaction via a radio, smartphone or home-speaker, or through a robotic assistant.

Benefits

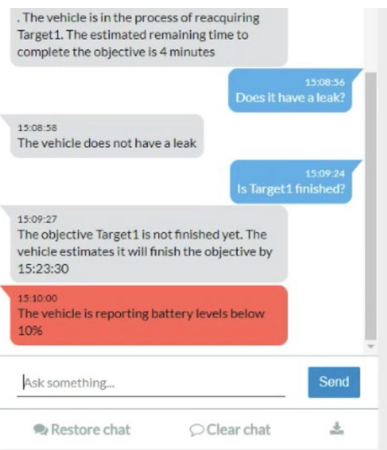
- Builds trust between Human-Machine teams for safer and more efficient hazardous operations
- Supports joint Human-Machine decision-making for optimum operational efficiency
- Balances operator, pilot and technician information intake ensuring full engagement in autonomous operations for safer UxV missions
- Help operator, pilot and technicians increase their understanding and performance during missions

Possible Applications

- Mission monitoring for;
 - Autonomous Underwater Vehicles (AUVs)
 - Autonomous Unmanned Aerial Vehicles (UAVs)
 - Autonomous Unmanned Ground Vehicles (UGVs)
- Virtual support operator / second pilot for remote vehicle operations, e.g. Beyond Visual Line of Sight (BVLOS)



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Offshore Robotics for Certification of Assets

Remote Safety and Integrity

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