



ETHICAL MISSION DEFINITION AND EXECUTION FOR MARITIME ROBOTS

- Ethical and legal basis is required for humans supervising deployed robots.
- Effective robot tasking resembles operational tasking of humans afloat.
- Ethical orders are coherent tasks + safety constraints, not morality agents.
- Human command is feasible via careful application of goals and constraints.
- Semantic Web logic can confirm ethical correctness and completeness.
- Validated robot missions complement and extend human operations orders.
- Qualification testing might further certify unmanned-system competencies.
- Next steps: extend 25 years work with simulation and scenario experiments.

“Ethical constraints on robot mission execution are possible today. There is no need to wait for future developments in Artificial Intelligence (AI). It is a moral imperative that ethical constraints in some form be introduced immediately into the software of all robots that are capable of inflicting unintended or deliberate harm to humans or property.” Robert B. McGhee, April 2016

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