

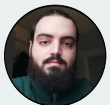
Cooperative Multi-Modal Robots For Autonomous Coverage Path Planning

Purpose

Coverage path planning is important to optimally identify safe, collision-free and least-cost paths from an origin to a destination. It can be applied to multiple areas: cleaning, lawn mowing, inspection or rescue missions. The aim of this project is to study, prepare and implement the necessary elements to create a heterogenous multi-robot system for coverage path planning.

Results, findings, additional details

This research created an scalable multi-modal autonomous robotic solution for coverage path planning. Using a robust coverage path planning the robots can move in a dynamic environment. Additionally, the system implements a hot swapping subroutine to enable an in-mission battery recharge.



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