



SeekerSwarm : Swarm For Locating Lost Objects In The Warehouse

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OVERVIEW

This project aims to leverage the power of the Robot Operating System (ROS) to develop a sophisticated swarm of more than 20 TurtleBots capable of autonomously locating misplaced and valuable items within the warehouse

CAPABILITIES

Each turtlebot moves in the simulated environment autonomously with predefined algorithm for traversing. The swarm has capabilities to avoid dynamic obstacles and generate new paths using proper planning.

APPROACH

The bots deployed at different locations starts a search operation around some specified radius to look for the lost item which has a Aruco marker using a Camera. Once the lost item is found main station is notified along with other robots. All the robots return back to their home station.

MILESTONES

Deliverables : A scalable and ready to use software module of a multi agent robot.

Timelines:

Phase 0 : November 28,2023

Phase 1 : December 12, 2023

Phase 2 : December 19, 2023