SPARROW – AUTONOMOUS WAREHOUSE INSPECTION

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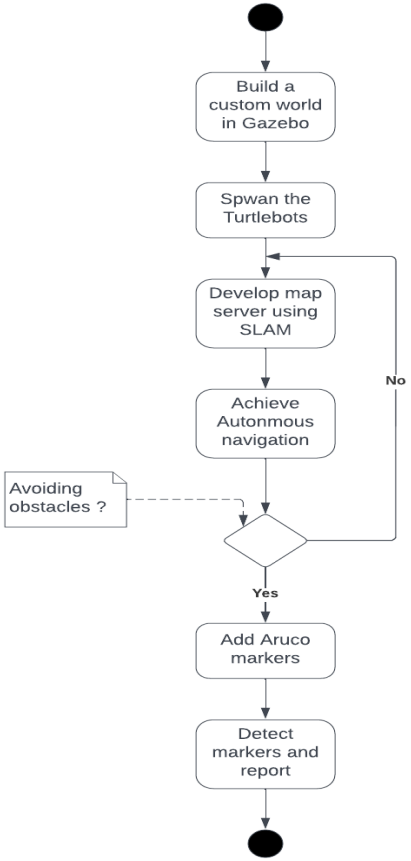
MAIN OBJECTIVE

Autonomous navigation of turtlebot in a warehouse environment that recognizes anomalies (using Aruco markers)

APPROACH

- Navigate the turtlebot equipped with a lidar sensor using the SLAM package
- Inspect Aruco markers and report the activity.

UML ACTIVITY DIAGRAM



TIMELINE

TASK	DATE
SPRINT 1	
Setup warehouse gazebo environment	11/24/22
Launching turtle bot in gazebo	11/27/22
Generating map server for autonomous navigation	12/01/22
SPRINT 2	
Achieve autonomous navigation in the warehouse	12/03/22
Implementation of aruco marker to be subscribed by bot's sensor	12/04/22
Turtle bot inspecting anomalies in the warehouse	12/06/22
SPRINT 3	
Develop multiple inspection bots (Ambitious)	12/07/22
Launching multiple bots simultaneously reporting anomalies	12/10/22
Prepare presentation	12/13/22