

# Progress Report - Group 8

Robotics (E019370A) – A Minesweeping Robot

Week 2: 23/11/2020 - 30/11/2020

Below a small progress update can be found of group 8 concerning the minesweeping robot project of the 'Robotics 2020-2021' course. The left column describes what has been done during the last week, the right column describes what is planned as next steps with the focus on next week.

## What has been done?

#### General

- Follow-up on subtasks and integrating them (Together)
  - Team meeting on 27/11/2020, 30/11/2020
- Writing progress report week 2 (Lauren)
- Writing report: introduction (not complete) (Lauren)

## Simulation

Building a test environment with walls and obstacles (Lauren)



 Randomly distributing mines in test environment (Lander and Lauren)



• ROS-node for interaction with Gazebo (Lander)

# Robot Algorithms

- Testing SLAM for map building (Flor, Henrique)
- Extending basic controller ROS package (Flor)

# **Evaluating Strategies**

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# What is planned for week 3?

#### General

- Follow-up on subtasks and integrating them (Together)
  - Team meeting on 4/12/2020, 7/12/2020
- Writing progress report week 3 (Lauren)
- Writing report: introduction + reasoning (Lauren)

## Simulation

- Extending test environment for the Turtlebot: smaller area, correct mine sizes, multiple test areas etc. (Lauren)
- Extending ROS-node for interaction with Gazebo: Deleting, adding and changing elements etc. (Lander)

## Robot Algorithms

- Implementing SLAM for map building (Flor)
- Extending ROS package with different sweeping strategies (Flor, Henrique)

# **Evaluating Strategies**

 How to keep track of demined mines? (Lander)