# MPC-MAP Assignment No. 3 - Report

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## Task 1

A graph of a diagram

AI-generated content may be incorrect.

As random noise was used PDF of lidar from first week measurement.

## Task 2

For weight classification, Euclidean distance was used with normalization.

## Task 3

Resampling is elaborated as Thrun’s heuristic algorithm. Last X particles are deleted and reinitialized for occasion of kidnapped robot problem.

## Task 4

Important parameters are number of particles, PDF of pose prediction and amount of particles whit are doing localization of robot.

Heuristic resampling algorithm is used because it is easy to use. Euclidean distance has simple implementation and is less demanding on computer calculation.

The biggest issue was to figure out how to make correctly prediction.

A screenshot of a map

AI-generated content may be incorrect.A screen shot of a graph

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