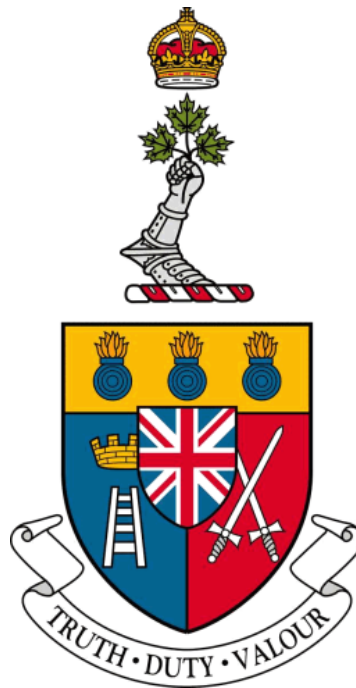


ROYAL MILITARY COLLEGE OF CANADA

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING



DID-03 - Statement of Requirements

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Part 1

Introduction

1.1 Document Purpose

The purpose of this document is to outline the project requirements. That is, what the project is to accomplish once all of the requirements outlined in this document have been completed and to what standard they shall be considered done. The benefits of meeting these requirements and solving this problem will be. This document will then identify the constraints that these requirements impose on this project will be.

1.2 Background

Both in the consumer and professional sectors the use of autonomous aerial vehicles is growing quickly. Background is going to be a long section and maybe we should have subsections

1.3 Aim

1.4 Scope

Part 2

Requirement Definition Activities

2.1 Information

2.1.1 Meetings with Dr. Givigi

2.2 How References Were Used

2.2.1 First Reference

2.2.2 Another Reference

Part 3

Product Requirements

3.1 Functional Requirements (FR)

3.1.1 FR-01: Movement Toward Target

Be able to control the robot using ROS. In particular, given that our task is to move toward a target the robot must be able to do so in a manner that is controlled.

3.1.2 FR-02: Identification of Target

The robot shall recognize optically a goal and be able to give information on the targets location relative to the robot. HELLO HEEBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB

3.1.3 FR-03: Avoiding Obstacle

The robot shall be able to make a deviation from its current movement pattern to avoid an obstacle in its path and then return to this pattern.

3.1.4 FR-04: Identification of Obstacle

The robot shall recognize optically obstacles in its environment and identify where they are relative to itself.

3.2 Performance Requirements (PR)

3.2.1 PR-01

3.3 Interface Requirements (IR)

3.3.1 IR-01

3.4 Simulation Requirements (SimR)

3.4.1 SimR-01

3.5 Implementation Requirements (ImpR)

3.5.1 ImpR-01

3.5.2 ImpR-02: Turtlebot Robot Operating System

The simplest obstacle avoidance algorithm must be implemented on a Turtlebot using the Robot Operating System

3.6 Schedule Restrictions (SR)

3.6.1 SchR-01: First Prototype

The first functional prototype shall be available for Beta testing no later than November 1st

Part 4

Risk Assessment

4.1 Risks

4.2 Likelihood

4.3 Impact

Part 5

Conclusion

5.1 Summary

5.2 [Link to Preliminary Design Specification](#)

References