



Vehicle Intersection Control

McMASTER UNIVERSITY

Draft System Requirements

SE 4G06

GROUP 6

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Revisions

Date	Revision Number	Authors	Comments
November 7, 2016	Revision 0	Alex Jackson Jean Lucas Ferreira Justin Kapinski Matthew Hoberg Radhika Sharma Zachary Bazen	N/A

Table 1: VIC Table of Revisions

***** These headings to be double checked against template to ensure no topics missed *****

1 Project Drivers

1.1 The Purpose of the Project

The purpose of this project is to allow autonomous cars to identify and navigate intersections by providing an appropriate order to proceed through the intersection. Currently multiple autonomous cars arriving at an intersection at the same time have no decision protocol that will determine which car proceeds first through the intersection. **{{(From project goals)** VIC will allow autonomous vehicles to identify intersections and form a unanimous consensus of the order in which vehicles should proceed through an intersection. In addition, VIC will be able to dynamically handle changing scenarios at an intersection without running into deadlock or stalemate situations. To ensure safety, VIC will allow cars to navigate through the intersection only after a unanimous consensus has been made. }

1.2 The Client, the Customer, and Other Stakeholders

1.2.1 Client

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1.2.2 Customer

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1.2.3 Stakeholders

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1.3 Users of the Product

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2 Project Constraints

2.1 Mandated Constraints

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2.2 Naming Conventions and Definitions

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2.3 Relevant Facts and Assumptions

Insert Text Here.

3 Functional Requirements

This section is taken from IEEE

TRK-1: Track requirement 1

TRK-2: Track requirement 2

:

TRK-3: Track requirement n

VHL-1: Vehicle requirement 1

VHL-2: Vehicle requirement 2

:

VHL-3: Vehicle requirement n

ITC-1: Intersection control requirement 1

ITC-2: Intersection control requirement 2

:

ITC-3: Intersection control requirement n

4 Nonfunctional Requirements

4.1 Look and Feel Requirements

4.1.1 Appearance Requirements

Insert Text Here.

4.1.2 Style Requirements

Insert Text Here.

4.2 Usability and Humanity Requirements

4.2.1 Ease of Use Requirements

Insert Text Here.

4.2.2 Personalization and Internationalization Requirements

Insert Text Here.

4.2.3 Learning Requirements

Insert Text Here.

4.2.4 Understandability and Politeness Requirements

Insert Text Here.

4.2.5 Accessibility Requirements

Insert Text Here.

4.3 Performance Requirements

4.3.1 Speed Requirements

Insert Text Here.

4.3.2 Safety-Critical Requirements

Insert Text Here.

4.4 Precision Requirements

Insert Text Here.

4.4.1 Reliability or Availability Requirements

Insert Text Here.

4.4.2 Robustness or Fault-Tolerance Requirements

Insert Text Here.

4.4.3 Capacity Requirements

Insert Text Here.

4.4.4 Scalability or Extensibility Requirements

Insert Text Here.

4.4.5 Longevity Requirements

Insert Text Here.

4.5 Operational and Environmental Requirements**4.5.1 Expected Physical Environment**

Insert Text Here.

4.5.2 Requirements for Interacting with Adjacent Systems

Insert Text Here.

4.5.3 Production Requirements

Insert Text Here.

4.5.4 Release Requirements

Insert Text Here.

4.6 Maintainability and Support Requirements**4.6.1 Maintenance Requirements**

Insert Text Here.

4.6.2 Supportability Requirements

Insert Text Here.

4.6.3 Adaptability Requirements

Insert Text Here.

4.7 Security Requirements

4.7.1 Access Requirements

Insert Text Here.

4.7.2 Integrity Requirements

Insert Text Here.

4.7.3 Privacy Requirements

Insert Text Here.

4.7.4 Audit Requirements

Insert Text Here.

4.7.5 Immunity Requirements

Insert Text Here.

4.8 Cultural and Political Requirements

4.8.1 Cultural Requirements

Insert Text Here.

4.8.2 Political Requirements

Insert Text Here.

4.9 Legal Requirements

4.9.1 Compliance Requirements

Insert Text Here.

4.9.2 Standards Requirements

Insert Text Here.

5 Project Issues

5.1 Open Issues

Insert Text Here.

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