CS407 Group Report

A framework for autonomous drone networks

Authors:
William Seymour,
Jon Gibson,
Alex Henson,
Ben De Ivey

Supervisor:
Dr. Arshad Jhumka

Department of Computer Science
University of Warwick
Summer 2016

Contents

List of Figures

List of Tables

Abstract

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetuer id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

CHAPTER 1. Opening

1.1 Key Words

Autonomous Drones, Sensor Networks, Pathfinding

1.2 Word Count

The document contains 30,000 words. This number was calculated from the document source by TeXstudio.

1.3 Acknowledgements

(kind words go here)

1.4 Introduction

CHAPTER 2. Background

2.0.1 Definitions

2.0.2 Quadcopters

2.0.3 Sensor Networks

The Internet of Things

2.0.4 Drone Networks

2.1 Just an example of how we might break them down

CHAPTER 3. Literature Review

3.1 Uh, I don't know how to divide these

3.2 You get the idea though

CHAPTER 4. Specification

4.1 Objectives

4.2 Justification

4.3 Requirements Identification

Functional Requirements

Non-functional Requirements

4.4 Project Deliverables

4.5 Changes From Original Specification

CHAPTER 5. Simulation Software

5.1 Existing Solutions

5.1.1 NS3

5.1.2 NS2

5.1.3 Some

5.1.4 other

5.1.5 stuff

5.2 Summary of Existing Solutions

5.3 Preliminary Work

5.3.1 Stakeholder Analysis

5.3.2 Feasibility Study

5.4 Development Methodology

5.5 Requirements Identification

5.5.1 Functional Requirements

5.5.2 Non-functional Requirements

5.6 Code Structure

5.6.1 The Environment

5.6.2 Communication Modules

5.6.3 Drone

5.6.4 Base Station

5.7 Results

5.8 Review Against Original Objectives

CHAPTER 6. Physical Routing

CHAPTER 7. Communications Routing

CHAPTER 8. Physical Deployment

8.1 Objectives

8.2 Equipment and Feasability

8.2.1 Arduino

8.2.2 RaspberryPi

8.2.3 Something else

8.3 Adapting the Simulator Code

8.4 Results

8.5 Review Against Original Objectives

CHAPTER 9. Project Outcome

9.1 Projects Deliverables

9.2 Review Against Original Objectives

9.3 Project Appraisal

9.4 Future Work

CHAPTER 10. Project Management

10.1 Team Structure

10.2 Progress Tracking

10.3 Source Control