

Project Option Final Deliverable

CS3630 Spring 2007

April 26, 2007

Introduction

There will be two deliverables for all students that have chosen the project option

1. An individual **RCS Design Term Paper**
2. A collaborative **Hardware Team Report**

Please note the following:

- **Due Date:** Both are due at the same time as the final. If needed, extensions can be asked and will be granted until Friday of finals week.
- **Format:** All deliverables are due **in hardcopy and as a Microsoft Word file**. The intent is that a final, collective document can be created as a final course outcome. As such, when writing the documents below, **imagine a technical audience of graduate students and robotics faculty**.
- **Grading:** you will be graded (1) how well you have understood the design principles behind RCS, (2) how well you have understood the design principles as applied to the specific RCS project, and (3) how “professional” your design document is and how suitable it is to serve as the basis for an actual implementation of the project.

1 RCS Design Term Paper

Please write a 3 page term paper on the design of your chosen RCS node (see Swiki) in the greater RCS hierarchy. This should consist of the following sections

1. Introduction (0.5 page): discuss the goal of the project, the key ideas behind RCS, and the predicted benefits of using RCS
2. Overall design (0.5 page): discuss the overall design of the Saccade project as an RCS hierarchy
3. RCS Node Context (0.5 page): discuss, in words, the role of your RCS node and which other nodes it will interact with, and at what timescales these nodes and your node will run
4. RCS Node Design (1 page): discuss the different sub-parts of your RCS node, inputs and outputs, and pseudo-code for each part
5. Outcome and lessons learned (0.5 page): discuss the outcome of the project, and the advantages and disadvantages of RCS as you see it now, and possible other lessons learned during this project.

2 Hardware Team Report

With your hardware group, please produce a 1-3 page design document (with documentation and references to sources, such as web-pages and other documents) regarding the hardware component