CISC 499 Undergraduate Project Proposal, October 28, 2002

For: Prof. M. McCollam

By: Tim Collier

A Taste of Robotics Research for CISC 101 Students

This project will be comprised of 2 key components, a presentation to CISC 101 students on leading-edge robotics research and a robotics simulation for use by CISC 101 students. The project will require research into what is currently considered the 'state of the art' in robotics research, as well as determining the different applications that computerized robots are currently being developed for.

The presentation is intended to introduce CISC 101 students to the field of computerized robotics research, and will be designed to fit into a 50-minute class period. It will have a high visual content, possibly through the use of images, diagrams, animations, or imbedded video clips. The interactive simulation will be designed using either a java applet or through flash. It is intended to give a CISC 101 student a "hands on" feel, allowing them to try out some aspect of robotics. It should also be visually appealing.

The presentation and simulation will each have specific due dates for an outline, rough draft, preliminary final copy, and final copy. During the outline, rough draft, and preliminary stages of work the supervisor's comments will be sought, and incorporated into the next stage of the project. The outline is intended to show how I am going about doing that particular portion of the project. The presentation outline will contain the aspects of robotics that will be included in the presentation, and the different sub-topics within it. The simulation outline will include what medium the simulation will be in (java applet, flash, or maybe something else?), what will be presented through the simulation, and what some interactions may be.

The rough draft of the presentation will have each slide completed in draft form, however some content, images, animations, or video content may not yet be present. The rough draft of the simulation will be partly functional, however not all functions and interactions will be supported. Also the graphics behind the simulation will likely not be fully developed by the rough draft stage.

The preliminary final copies of the presentation and simulation will each contain the completed and fully functional piece of work. These will be due one week before the final copy, in order for the supervisor to develop comments and corrections over the following 2-3 days. During the subsequent few days these comments and corrections will be implemented into the final copy of the presentation and simulation. All of this work will be completed by Friday March 21, 2 weeks before the end of classes. The following week will be used to write and finalize the required CISC 499 report, due March 28. This leaves an extra week before the end of classes, which will be utilized to finish the project in case of a schedule slip should anything unexpected occur. The schedule for completed work is below:

Fri. January 17, 2003 - Presentation outline

Fri. January 31, 2003 - Presentation rough draft

Mon. February 3, 2003 - Simulation outline

Mon. February 10, 2003 - Presentation Preliminary final copy

Mon. February 17, 2003 - Presentation final copy

Mon. March 3, 2003 - Simulation rough work

Fri. March 14, 2003 – Simulation Preliminary final copy

Fri. March 21, 2003 - Simulation final work

Mon. March 24, 2003 - Report rough draft

Fri. March 28, 2003 - Report final draft

_____ Prof. M. McCollam _____ Tim Collier