EE / CprE / SE 491 – sdmay19-01

Athlete Motion Tracking

Week 9 Report

11/22/18 – 11/29/18
Client: Nathan Johnson
Faculty Advisor: Craig Rupp

Team Members:

Nathan Mazarelo —— *Weekly Reporter/Software Developer*

Monte Friestad —— *Spokesperson/Software Developer*

Madeline Rogers —— *Meeting Facilitator/Hardware* Maintainer

Ryan Hansen – *Scribe/Hardware Maintainer*

Weekly Summary

This week our team is finished up on making major changes for this semester of work. The new cameras were picked up from Des Moines to replace the Kinects. The motion tracking program received speed modifiers and code cleanup. The web application had updates to the layout orientation. The team began work on the final presentations and proofreading the design document and project plan before final submission.

Past Week Accomplishments

- Tried new camera software, researched USB controllers, camera casing, and proofread documents – Ryan
  - Experimented with New Camera Software
    - Tried using alternate software solutions such as Kinovea, an open source motion tracking program, that can be implemented with Code Nathan has developed
  - Research for USB controllers
    - Researched ways to implement additional USB controllers to the host computer used for tracking processes.
  - Camera casing
    - The cameras tend to run hot so explored options for housing a fan and providing power to it
  - Document Edits
    - Read through the design document and started editing before the final submission

- Retrieved new cameras and made final edits for documents– Maddie
  - New Cameras
    - Picked up the new cameras in Des Moines from the client
  - Document Edits

- Read through and suggested edits of formatting issues, grammar, citing sources, and content for both the design document and project plan.

- Began proofreading the project plan and design document before final submissions dates

- Finished up final changes to motion tracking program and began proofreading documents - Nathan
  - Motion Tracking Program
    - Added speed modifiers for line tracking to help see the lines when the points are moving
    - Cleaned up the code to make it readable for future updates
  - Documents
    - Began proofreading and making changes to the design document and project plans
    - Used suggested edits from other team members to start making changes and prepare documents for final submission

- Web application fixes and final presentation work – Monte
  - Web app
    - Worked to fix graphical and functional bugs that looked bad or inconsistent before the final presentation
  - Document Work
    - Worked on final presentation slides
    - Began proofreading and editing the project plan and design document before final submission

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Ryan Hansen	Tried new camera software, researched USB controllers, new camera casing and cooling, and proofread documents	8	60
Madeline Rogers	Received new cameras from Des Moines to replace the Kinects. Read through and suggested edits regarding grammar, citing sources, content, and formatting for the project plan and design document	8	63
Nathan Mazarelo	Finished up final changes to motion tracking program for the semester. Added speed modifier for the line tracking to help see the	8	62

	lines when points are moving. Cleaned up the program code for future updates. Began proofreading and making changes to the design document and project plans		
Monte Friestad	Fixed graphical and functional bugs on the web app that looked bad or inconsistent before the final presentation. Began work on documents due for the presentation.	8	60

Plans for Coming Week

- Ryan
  - Try to get the Kinovea software working with the new cameras and extract the data
- Maddie
  - Continue research on possible cases to enclose the new cameras for safety
- Nathan
  - Get excel data from new cameras and start testing with motion tracking program
- Monte
  - Continue fixing up bugs in web app and editing final documents and slides for presentation