

## EE / CprE / SE 491 – sdmay19-01

### Athlete Motion Tracking

#### Week 7 Report

11/1/18 – 11/8/18

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 worked on getting cameras to upgrade the Kinect and continued work on the angle analysis software and web application. We looked for cameras that would improve the quality of recordings and increase fps. In our angle analysis program, we added real time data display and colored lines to show vectors. In our web app we changed our layout from single view to side by side view to be able to compare different sessions.

#### Past Week Accomplishments

- Reviewed design document and determined what camera upgrades were needed – Ryan
  - Reviewed the design document before turning in version 1
  - Figured out what was the wrong with the Kinect while creating live demo
    - The Kinect cameras can't perform to the quality needed
    - New cameras are needed for better quality and higher fps recordings
- Compiled issues with current documents and prepared for future documentation – Maddie
  - Project plan and design document
    - Went over feedback and found the areas of problems that need to be corrected
  - Final presentation and PowerPoint
    - Started to work on the final presentation by creating the beginnings of the PowerPoint required for the project
- Made updates and improvements to angle analysis program – Nathan
  - Data and calculations
    - Displayed the data calculated in program onto the screen in real time
  - Visual Plots
    - Added a defined plot to encase the data points and prevent resizing

- Added colored lines to display the different vectors
- Made updates to web application – Monte
  - Layout
    - Changed the layout based on feedback from client
    - Transitioned from multiple pages with different functionalities to a more efficient side by side view
      - This allows for previous sessions to be compared with current session at the same time

### Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Ryan Hansen	Reviewed design document before final submission and determined what camera upgrades were needed to improve quality.	7	45
Madeline Rogers	Compiled issues with current documents and prepared for future documentation. Began final presentations and PowerPoint work.	7	48
Nathan Mazarelo	Made updates and improvements to angle analysis program. Displayed calculations in real time and added color lines to the plot.	7	47
Monte Friestad	Made updates to web application. Changed the layout orientation from multiple to side by side view.	7	45

### Plans for Coming Week

- Ryan
  - Work on getting the data exported from ipi after receiving the new cameras
- Maddie
  - Find a way to test if the new cameras can capture video at the required fps and rpm needed to complete the project
- Nathan
  - Apply the data from the new cameras to the angle analysis program and make any modifications necessary
- Monte
  - Make more improvements to the side by side view on the web app to improve the fluidity of transitions