sdmay19-08: IC Chip: Automated Clay Target Scoring System
Week 9 Report
11/13/2018 - 11/25/2018
Client: Dr. Henry Duwe
Faculty Advisor: Dr. Henry Duwe

Team Members:

Eva Kuntz – Software Architect Lead; Report and Communication Manager
Cole Huinker – Software Architect, Data Analysis, Computer Vision
Steven Sleder – OpenCV and Machine Learning Lead; Data Analytics Lead
Michael Ruden – Hardware Architect Lead; Prototype Manager
Keith Snider – Software Architect; Webmaster

Weekly Summary:

This week was focused on finishing labeling all videos from the second data collection session, in addition to working with YOLO to create a working example to show our client.

Past Week Accomplishments:

- Mobile Application
  - Mock screen diagrams for use in development on.
  - Created database schema for video storage.
- Data Labeling and Collection
  - All of the video data from collection 2 has been split-up, labeled and upload to our CyBox.
  - Still in the process of drawing bounding boxes on the data.
- Yolov3 Model
  - Sent an example to the customer Dr. Duwe to show off our current model

Pending Issues:

- Current Python wrapper for YOLOv3 has broken dependencies and can't save videos of review

Individual Contributions:

Team Member	Contribution	Weekly Hours	Total Hours
Eva Kuntz	Researched SQLAlchemy for use on hardware to store videos; Created DB schema for video storage.	7	71
Cole Huinker	Data labeling, editing and drawing bounding boxes	8	69
Steven Sleder	Packaged a model for Dr. Duwe's review and labelled data	7	71

Michael Ruden	Updated the camera simulation to include the depth of view range	7	55
Philip Hand	Breaking up videos using Frame Ripper	7	53
Keith Snider	Created mock screens for mobile application to show client; worked on creating mock data to test mobile application.	7	60

Plans for the Upcoming Week:
- Eva Kuntz – Mobile application.
  - Create test development project to learn more about SQLAlchemy.
  - Continue work on mock screens for mobile application screen flow.
- Cole Huinker – Data labeling and drawing boxes.
  - Continue drawing bounding boxes.
- Steven Sleder – More data labelling and continue working on hooks for the model in a deployment environment
- Michael Ruden – Data labeling.
- Philip Hand –continue to use frameripper program and labeling data
- Keith Snider – Continue working on creating mock data.