sdmay18-02: Augmented Reality Mechanical Design Solution

Week 10 Report

November 21 – December 5

Team Members

Bhimesh S. Chauhan — Graphics Developer Vaibhav Malhotra — Backend Developer Cole Chapin — UI Design Engineer Ryan Luck — UX Engineer Cal-Vert Wong — Pipelining

Summary of Progress this Report

We have following issues addressed this week:

- 1. The team created a demo for our presentation by parsing a stl file
- 2. The stl file was then rendered into our graphics engine and displayed on the HTC VIVE and recorded from there
- 3. Created our presentation for the end of the semester review

4.

Pending Issue

We have following pending issues for the next week:

- 1. We must connect our stl parser and item renderer such that we can render the item automatically given a stl file. Currently we have to manually add each node to our rendering program.
- 2. Adjust our graphic render such that it can automatically take in an extremely large number of nodes that might come with larger stl files.

Plans for Upcoming Reporting Period

We have following upcoming reporting period:

- 1. Build a module such that our stl file sends data to our rendering program
- 2. Read the data from the stl file and draw all the nodes in 3D space

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Bhimesh S. Chauhan	 Creating and rehearsing the presentation Developed the rendering for the demo 	15	93
Vaibhav Malhotra	 Creating and rehearsing the presentation Rendered the 3D cube on the VIVE for the demo 	15	78
Cole Chapin	Rehearsing the presentation	5	58
Ryan Luck	 Creating and rehearsing the presentation Re-vamped the design document and project plan 	15	77
Cal-Vert Wong	Creating and rehearsing the presentationAdded a GUI to our stl parser	15	78