

**sdmay18-02: Augmented Reality Mechanical Design Solution**

Week 9 Report

November 13 - November 21

**Team Members**Bhimesh S. Chauhan — *Graphics Developer*Vaibhav Malhotra — *Backend Engineer*Cole Chapin — *UX Engineer*Ryan Luck — *UI Engineer*Cal Vert Wong — *Software Developer***Summary of Progress this Report**

1. Interface in OpenVR and OpenGL
2. File Check and Conversion from unsupported to ascii format
3. Tree Data Structure implementation for triangular coordinates.
4. Research on QuadTrees.

**Pending Issues**

1. Implementation of the QuadTree for async and synch generation of models.
2. modeling a design in OpenGL to OpenVR using the translation of data to matrix coordinates.

**Plans for Upcoming Reporting Period**

1. Implement and learn more about QuadTree.
2. Research on interfacing and resolve related issues.
3. Create a proof of concept of graphics and control on OpenVR for presentation.

**Individual Contributions**

Team Member	Contribution	Weekly Hours	Total Hours
Bhimesh S. Chauhan	Implemented the tree model data structure for the node as the corners and child as edges of each corner from the 2d matrix format.	7	78
Vaibhav Malhotra	Research on interaction with model using collision theory and mathematical models in graphics.	7	63
Cole Chapin	Research on User Experience and design concept for menu and workspace for application	5	53
Ryan Luck	Researched on modification of model uploaded on the vr system.	7	62

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Cal Vert Wong	Researched on the file communication between the model and database updates dispatch system in enterprise applications	7	63
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