Recommendation for Project Continuation:

RAMBox – RAMTrack

This project should be continued in the coming senior design year. There has been quite a bit of progress this past year which leaves a very capable system in place and has plenty of room to grow and be carried on by a following team. Currently the entire control module system is complete, this includes the DMX and Triangulation processors and all related hardware necessary for the control module box to interface with the light board and light. There has also been quite a bit of work done on the specifications for the Blind and Reference nodes and the majority of the hardware for these has been purchased. With so much work already done on the project it should certainly be a very strong candidate to be picked up by next year’s team and finished. The amount of work required to finish the project should be quite a bit less than the amount that has gone into getting it to its current state, because of this there is a great opportunity to further the design.

In the sense of short term continuation, there is still much work to be done with the auto tracking system. With the control module complete, focus for the continuing team can be diverted to the location grid and communication between the control module and the blind node. Upon completion of the location engine, the system should be capable of controlling a single light in normal mode, bypass mode, and calibration mode. According to the theatrical lighting industry, all lighting is accomplished in pairs. This means that once the system is capable of controlling one light, the next step would be to include a second light at a different location which would target the same user.

Other the directions in which this project could head are focused around the capabilities of the location engine. Our contacts in industry were very interested in the ability to determine the user’s location on the stage. For example, if you knew the location of the presenter on the stage, you could automate the lights to reflect the mood of the surroundings. This means that the lights could automatically change when the performer travels from an indoor environment to an exterior setting. By speaking with people who work in the theatrical lighting industry, the continuing team will have several directions which the project can head.