Engineering 90 – Topic Selection Memo

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Topic: **Intelligent Lighting Processor**
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For my Engineering 90 project, I will continue to develop a real-time autonomous lighting processor for application in music venues. This project is currently in progress, and was begun as an Engineering 93 project this semester. The processing scheme will be oriented specifically for trance music – partly due to the systematic structure of the music, and partly due to my thorough knowledge of the genre. Although the final product would ideally be a freestanding device, the system will be developed on a desktop computer to ease the development process.

This main component of this project will be the creation of the signal processing algorithm, which will be written in C. By completing this project, I hope to gain much experience with the C programming environment and its use in the realm of digital signal processing. I am deeply interested in the field of music signal processing, and am hoping to pursue a related career after I have completed my education at Swarthmore College. I believe that this project has great applications in the commercial world of venue lighting, and that its completion will provide me with an excellent background for later research.