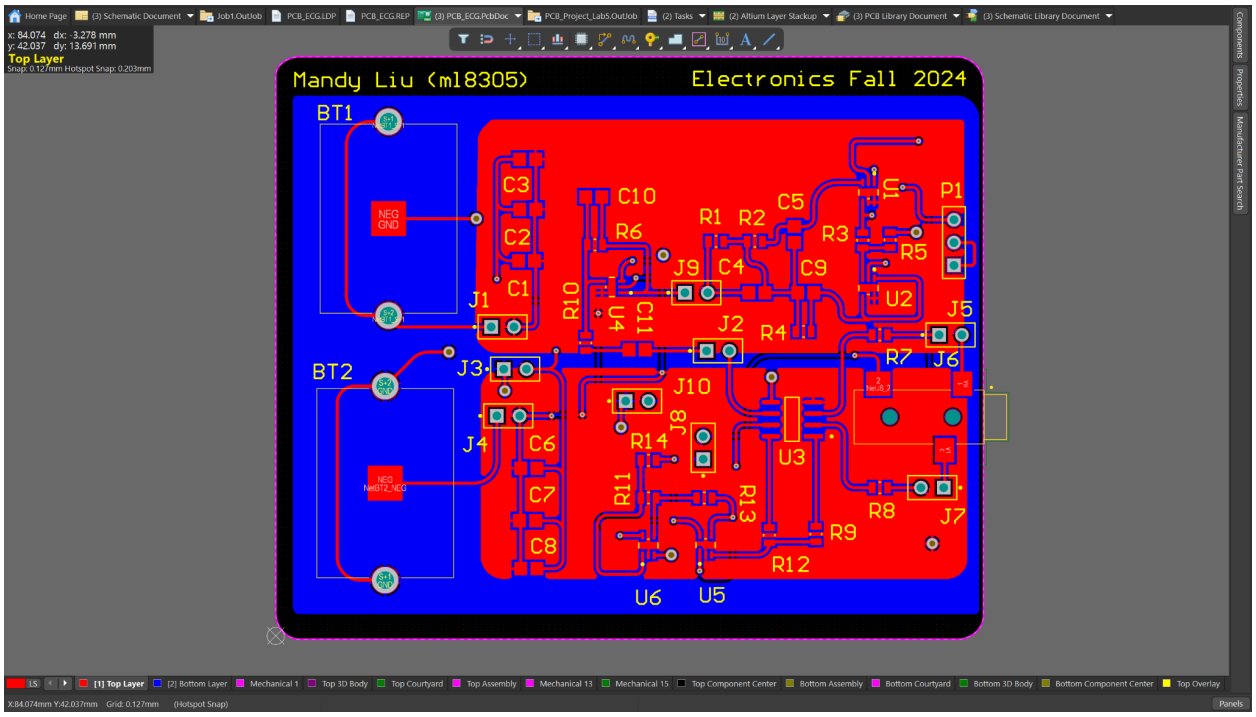
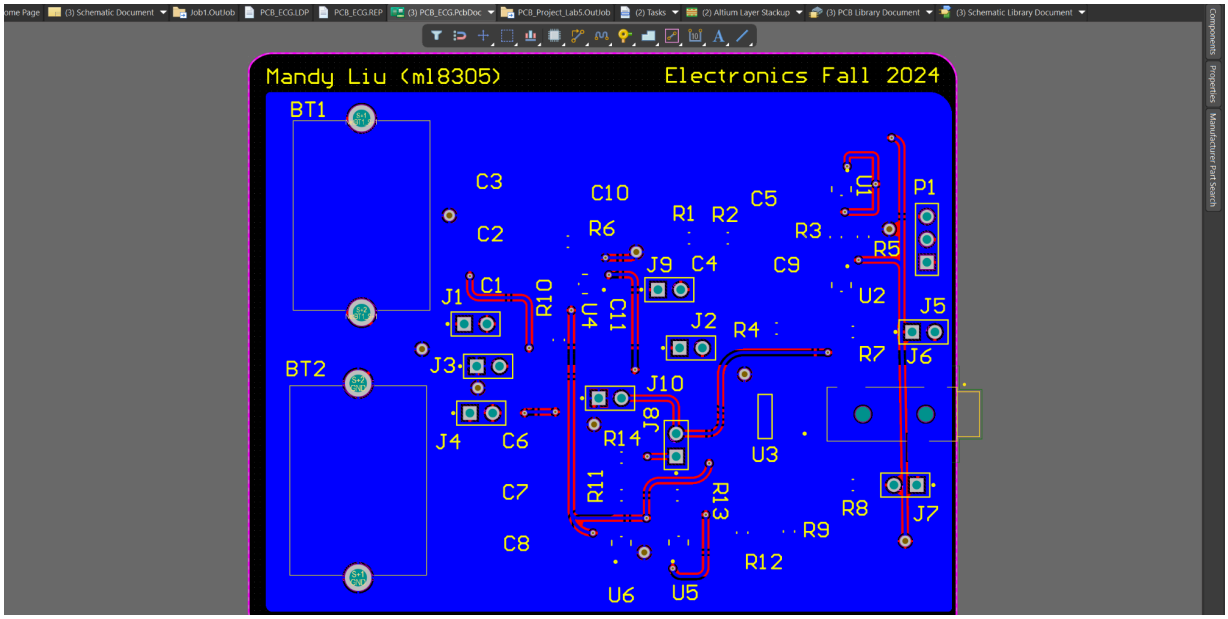
Introduction

The purpose of this paper is to implement a schematic to produce a high quality PCB board. With the help of Altium, the software would allow for both 2D and 3D models of the circuit and additional documentation from the internet as needed for various components. The design requires thought and creativity to ensure that the components are connected correctly and that there are no chances for the circuit to be shorted or ineffective. Once the PCB is completed, the PCB should be downloaded into Gerber and NC drill bit files in order for the manufacturer to produce the circuits. Below, the contents will provide photo reference to the completed circuit.

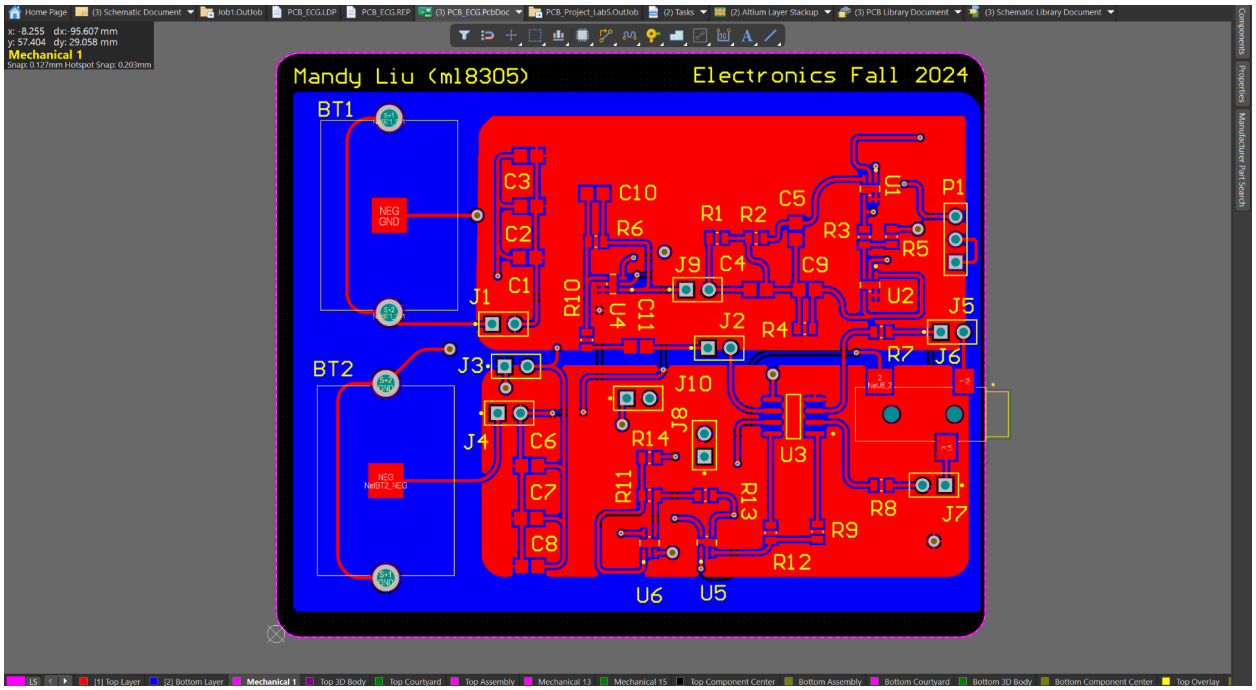
a. Top layer of the PCB



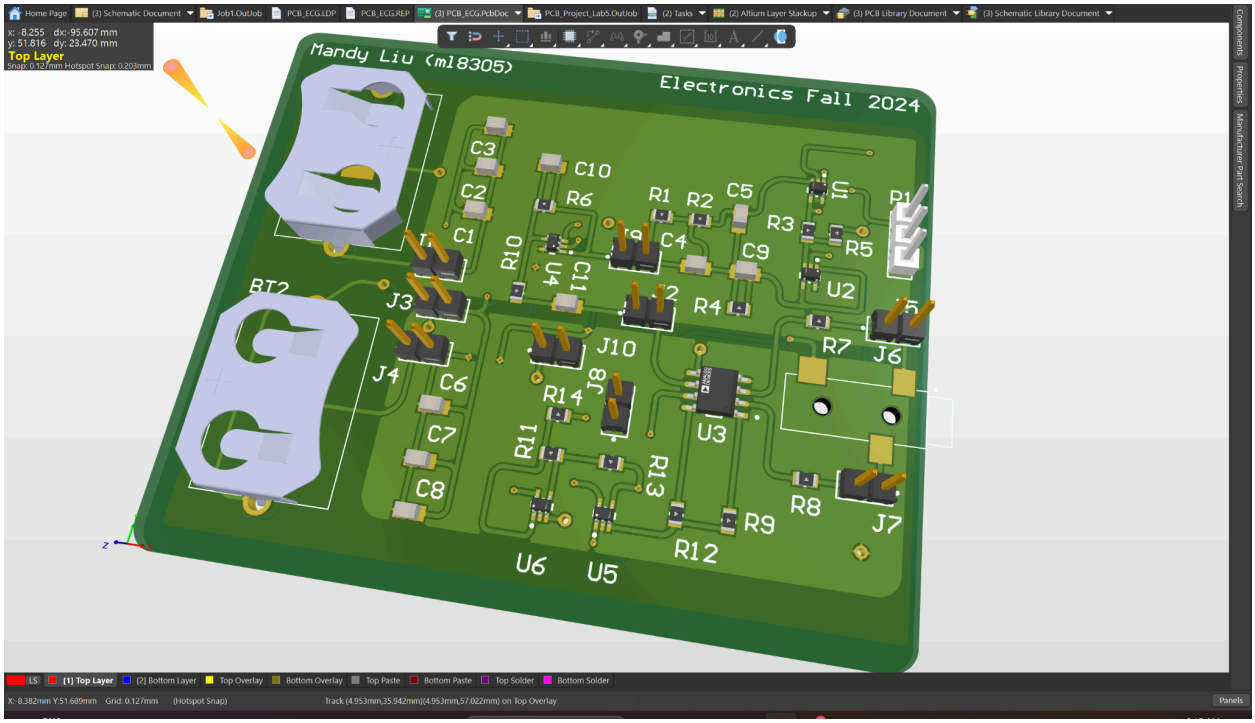
b. Bottom layer of the PCB



c. Mechanical layer of the PCB



d. 3D model of the PCB



Conclusion

The following helped to enforce the techniques of Altium and how the software can be used to develop complex circuits. Especially with the data importations, VIA, pouring, track routing, etc, the project provides a hands-on learning experience for the students. Through the completion, I felt I had a good foundation and understanding of Altium capabilities and hope in the future to continue to improve upon my skill sets.