

Group Number: 22A

Group Advisor: Professor Bigelow

Group Client: Professor Bigelow

Group Members: Hamzah Abeer, Aziz Almarzouqi, Nick Riesberg, Derek Schmitz, Matt Stobb, Brandon Umscheid

Week of 4/8/2013

This week we focused on the layout and assembly of the components of the devices. Brandon and Nick mounted our current components to a test board so that everyone could get a feel for wire length and amount of spacing between devices. Derek tested a P-MOS device to see if we could get the signal to chop with lower gate voltages. Component sizing has also been done for the buck converter in order to assemble a equipment list. The component sizing and power loss calculations showed the estimated power loss of the circuit. If everything goes as planned the circuit should dissipate 90W of power and be 90% efficient in converting power to the load.

On the controls side of the Battery charger, Hamzah and Azuz have created a PCB to mount the LCD screen and the control push buttons. This should eliminate the use of excessive mounting bolts to the casing of the charger.

Next week is the deadline for many written documents, assuming the deadline from last week's meeting stays in place. High current testing still needs to be done on the circuit. This testing depends upon when the group is able to get lab access to the Power Lab.