

Week of 1/21/2013

Charging Station Progress Group Number: 22A

Group Advisor: Pr. Bigelow

Group Client: Pr. Bigelow / Paragon

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

Accomplishments:

We ordered multiple parts over break and most of them have arrived and we have picked them up from the electronics shop.

We have also secured a locker in the senior design lab to store our equipment in.

Things to do:

Matt is going to ask around the department to see if we can obtain some space/equipment in a lab that we can test and work with higher voltage/currents.

Brandon is going to test the SSR with low voltages in the 201 lab and then also test it with the microcontroller as the control for it to verify functionality.

Nick and Derek are continuing to design the buck converter.

We need to verify with Professor Bigelow the amount of funding we have left.

We have also found the terminal connector we want to use for the battery/charger interface. They are high in price so we will confer with Professor Bigelow to see what he wants us to do with them.

We also need to talk with Professor Bigelow and the Cart team to verify who is responsible for the connections on the battery. Whether they will be permanent to the battery or they will be connected during charging operation only.

Future things to consider:

We need to talk with Professor Bigelow on the charging circuit physical layout. How we are to do this and if we will be able to have a test board or just a final design board.

Need to consider heat syncs for some of our components due to heating if needed. This will be determined after testing to validate whether we need them or not.

We also discussed casing options for our charging station; we need to confer with Professor Bigelow on exactly what specification he has as far as environmental considerations.