In the past week we successfully got both the voltage regulator circuits working, the circuit for the solar panel and for the arduino. After both circuits were working properly, we were then able to go on Eagle Layout and design part of our PCB design, the board design, so far, has successfully designed two voltage regulators, the temperature circuit, and the transmitting circuit for the back-up sensor.

All that is needed to complete the total PCB design is the receiving circuit for the back-up sensor which we plan on having done and the PCB ordered by the next update.

Along with the PCB design almost being complete and ordered, we have bought the external battery charger for the external battery powering the electronics and are going into the lab today to install the charge controller on the cart and test to make sure it is working properly. Like stated in my previous updates, this charge controller is simply being used as a back-up charger to the solar panel.

We have also built a wiring harness for the LCD so that it is easy plug and play instead of trying to solder every wire on the LCD board, the wiring harness works great and we even have the LCD displaying information.