

Agenda for Team HEV Weekly Meeting with Professor Schafer, 1/25/2010:

1. Action Items - Worked this week
 - a. Made calculations on voltages and currents
 - b. Ultra-capacitor balancing circuit, with power diodes
 - c. Building the MOSFET circuits for microcontroller switching (Bill and Matt report)
2. Action Items - Need to do
 - a. Connections (Slipstream is providing us with robust wires)
 - b. Replace 3 kW transformer with 6 kW transformer (Also provided by slipstream)
 - c. Test the balancing circuit
 - d. Microcontroller board design
 - e. Begin Low Level Design
3. Subsystems to be Demonstrated
 - a. Charging Circuitry
 - I. Generator
 - II. Transformer
 - III. Bridge Rectifiers
 - b. Microcontroller switching given input from ultra-capacitor stack
 - I. Hardware: resistor divider circuit
 - II. Software: C Programming
 - i. Send "on" signal when stack voltage reaches a low threshold
 - ii. Send "off" signal when stack voltage reaches a high threshold
 - iii. More complex algorithms when GPS receiver is fully configured
 - c. Microcontroller interface with Current sensors
 - I. Hardware: Current sensors that outputs a small voltage proportional to current measured
 - II. Software: Use current sensors to determine how long to leave the starter motor on
 - d. Microcontroller interface with GPS receiver and SD card