2.007 Electric Vehicle Section

Milestone #5 – Continuing Vehicle Construction

DUE: 12 March

DESCRIPTION:
You should have most of your parts and materials now, so the peak of the build season is from now until the **mandatory rolling frame inspection on Friday, March 23rd**. Don't think "Oh, I will have time after Spring Break to build" – you will not, because you will have other classes which will also consume your time.

Again: Your vehicle must be ready for a Rolling Frame inspection on Friday, March 23rd, as stipulated in the syllabus. That's **3** weeks from now.

The vehicle should be mechanically together at the inspection – motors and drivetrain should turn (not necessarily under its own power) and the brakes and steering should work. After Spring Break, you will concentrate more on electrical wiring, debugging, refining, and powered testing.

It is important to keep working now and preparing for fabrication time as your parts ship so you have an idea of what parts need to be made, how they should be made, and in what sequence you should build them. You should be aware of your design well enough to pace yourself through the next few milestones, which will focus exclusively on fabrication. Your Solidworks model should be nearing total completion – while some parts may still be "datasheet dimensions", you should still update them once you have the part in-hand.

Parts order will continue to be aggregated and sent every Monday and Wednesday. If you find yourself in need of metal or plastic stock, some special hardware, frame materials, etc. you should submit an order by emailing charlesg@mit.edu with an email in the following format: **Vendor, Part/item number, Quantity**. McMaster is encouraged if possible – the delivery turnaround is one to two days only. You are encouraged to organize with your classmates for bulk material orders to reduce cost per person. At this point, you should only have minor hardware and materials left to order – these are considered inconsequential towards your budget.

FORMAT OF DELIVERABLE: 2-4 pages in your notebook documenting your progress this week. Pictures of construction, CAD models, assembly sketches, fabrication drawings, etc. with commentary are encouraged.
Two dimensioned Technical Drawings that represent parts on your vehicle that you have to fabricate. These can be frame members, drivetrain parts, hubs, adapters, mounting plates, etc. Insert these into your notebook.

OTHER ACTIVITY: Shop and machine familiarization will occur on a rolling and as-needed basis this week.

RESOURCES:
Reading through the vehicle build reports for MIT student vehicles (links found in the STELLAR EV Resources document) will likely be helpful to your design and fabrication process.