FINAL DESIGN GUIDE

Final Design for will consist of **<u>two portions</u>**:

1. If not using a PowerPoint, a presentation that you can give as a handout (separate from the leaders' packet) to everyone to help you convey pertinent information, but please keep it limited to 3 pages.
2. A separate packet that you will hand in to the leaders and post electronically at the end of your presentation (following the guidelines below).

Presentation:

- ❑ Bring 4 double-sided copies
  - o One for you to present from, three copies for the leaders
  - o **No more** than 3 pages of handouts for presentation
- ❑ Talk about your design:

  How does your design help us succeed, i.e. what requirements does it fulfill and what are the significant interactions with other systems
  - o Specifications of your system
  - o How does your design help us succeed
    - ▪ **<u>Points analysis (cost, weight, power vs points)</u>**
      - Quantize the benefits vs. the drawbacks of your design in terms of the competition point system.
    - ▪ In-depth tradeoff analysis
  - o What tests have you done, what tests do you plan to do
  - o Potential failures/risks and their consequences
  - o What are the other parts that your design interacts with?
    - ▪ Describe the specifics of the interaction for each interaction.
- ❑ Risk Analysis of Risk and Opportunity the chosen design will offer (please see the two tables at the **end** of this checklist)

Separate Packet to turn in (use this as a checklist!!!!):

3. Bring 2 double-sided copies for the leaders
4. Acquisition plan for EVERY component of system:
   - o Detailed, properly dimensioned CAD drawing for all manufactured parts
   - o List of parts needed and part numbers
5. Data for competition design event:
   - o Graphs
   - o Calculations
   - o Specifications
6. Manufacturing Plan
   - o **Detailed manufacturing timeline**.
   - o All processes and how much time they take (man-hours):
   - o Deadlines for each step of the process
   - o Remember that manpower will be reallocated to assist manufacturing-heavy subteams
7. Assembly Plan
   - o How will you fit the part to the final product, is the assembly order important?
   - o How will you remove the part from the final product if it needs to be serviced or replaced?
   - o All parts should be in place a few days before set team deadlines
8. Sponsorship Information
   - o Parts received and approximate value
   - o Company contact info