Project grading policy, poster instructions, …

Grading Policy

1. Poster presentation quality (25pt)

2. Theory and answering questions about the circuitry, coding,… (25pt)

3. Showing the functionality of

   a. Smart car (50pt+bonus)

      i. Mechanical stability and neatness(10pt)

      ii. Interface circuitry (10pt)

      iii. Moving forward/backward and avoiding obstacles(10pt)

      iv. Making stops and turns(10pt)

      v. Gradual movement, acceleration and deceleration(10pt)

      vi. Each additional task (Booster, light sensor switch, …) (10pt bonus)

   b. Light sensor(50pt+bonus)

      i. Supply circuit(10pt)

      ii. Square wave generator(10pt)

      iii. Light generation and detection(10pt)

      iv. Comparator(10pt)

      v. Output buffer and AND circuitry(10pt)

      vi. Each additional task(buzzer, microphone, …) (10pt bonus)

4. A 2-3 minute video clip(taken by a basic digital camera or a cell phone camera) showing a demo and explanation of the project (5pt bonus)

How to make Posters

Each Poster should contain 9 slides. Basically you will prepare your presentation as a 9-slide Powerpoint file and print each slide on a standard (8.5 X 11) sheet of paper. You will be provided by poster boards and will attach your slides on it. Bring the poster with yourselves on presentation day to the Wozniak lounge in soda hall.

What to include in the poster

- The first slide should have your names, project summary and any overview point about the project such as applications and how it can be improved in the future, …
- Design considerations of each building block should be included in the poster. Codes written, design equations led to the chosen component values, answers to the questions asked in the project hand-out, graphs and capture photos of the spice simulation results or oscilloscope waveforms and all other accomplished parts should be in the poster.
- Addressing all building blocks in a modular way in your poster increases the quality of your presentation and helps you pass the theory part easier.

About the booster in the "Smart Car" project

It seems that implementing a booster is tricky when powered up by the 6V provided battery and needs the use of the DC power supplies in the lab. So it's hard to show the demo on the presentation day with the booster. What you can do is to go into the lab and show the demo of a booster working with a DC power supply to your GSI to get credit for the booster part. Or you can make a video clip demonstrating the functionality of the booster. If you have accomplished the booster secion you should include the explanation, related graphs, component values and capture photos in your poster presentation.