MEM 800 Project Task Specifications

Preamble: Over the past 6 weeks, VB programming fundamentals as well as several circuits have been covered. Additionally, advanced concepts such as front/back end DLL stitching, ActiveX and Winsock, were presented. This background provides the tools for one to interface peripherals to a Windows-based PC as well as control interfacing over the Internet.

Task Description: Implement a working PC interfaced peripheral with VB GUI. The GUI should be enhanced with at least one ActiveX component. Additionally the peripheral should be controlled via Winsock.

- Presentation: Each student works independently and is given 20 minutes to present the work to the class. Time budget is approximately 10 minutes slide presentation, 5 minutes demo and 5 minutes for question.

Grading: Fellow students will act as evaluators. The average of the best five evaluations will then constitute 40% of the final project grade. The instructor will evaluate and give the remaining 60%. Recall that this project constitutes 25% towards your final MEM800 grade. An evaluation form will be distributed and evaluated after each presentation. The general evaluation is broken down as follows:

- Demonstration: Hardware (circuits) and Software aspects (GUI, Winsock, ActiveX)
- Oral presentation, final report and web page

Prototype Evaluation Form

1. Presentation – 30%
   A. Generally the presentation was clear and well presented (out of 5)
   B. The project was well motivated (out of 5)
   C. The web page is well documented, with relevant pictures or photos (out of 5)
   D. The schematics, parts list, vendors and vendor part numbers make it easy for someone to replicate (out of 5)
   E. The code was well documented with descriptions of how it works (out of 5)
   F. The cited applications and/or extensions of the work are industrially/commercially significant (out of 5)

2. Hardware – 35%
   A. The circuit was cleanly constructed (tethers if necessary, part layout) and well labeled (out of 15)
   B. Circuit worked (0 or 20). If not working, one could easily debug it (0 to 10)

3. Software – 35%
   A. Turbo C. User could operate the hardware from instructions/prompts given (out of 5)
   B. GUI. User could operate the hardware from instructions/prompts given (out of 5)
   C. Winsock demonstration (out of 10)
   D. The GUI was visually appealing, with ActiveX component(s) and intuitive to use (out of 5)
   E. The software worked (0 or 10). If not working, the code looks easy to debug (0 to 5)