Pandora Box Prototype Assessment May 2001

Please complete Section One as you complete each activity and comment on what was easy or difficult.
Please complete Section Two after you have completed the entire activity.

Section One:

Comment on what was easy or difficult about creating the waveforms below.

1. Set a 500KHz sine wave with 0.5 Volt amplitude, 0 Volt offset.

Easy:_____ Difficult: _____

2. Set a 1 KHz square wave with a 2 Volt amplitude, 80% duty cycle, 0 Volt offset.

Easy:_____ Difficult: _____

3. Set a 10 Hz 0-3 Volt triangle wave. (1.5 Volt amplitude, 1.5 Volt offset.)

Easy:_____ Difficult: _____

4. The final box (without any knobs) will be about the same weight as this box. The box is:
    (a) just the right weight (b) too heavy
    What would be the preferred weight ? _____

5. The final box (without any knobs) will be about half the current size. The size of the final box is:
    (a) just the right size (b) too large
    What would be the preferred size? _____

6. The box's ease of use was: (circle one)
    Excellent Very Good Good Fair Poor Very Poor

7. Without the knobs and with all controls on the PC, it will take some menu levels to set signal characteristics (amplitude, frequency, offset, duty cycle, etc.) and to set measurement time. How many menu levels are just right?
(a) 2 levels (b) 3 levels (c) 4 levels (d) write in: _____ levels

8. Additional information that I needed to use the current box:

9. The problems I had were:

10. What I liked best was:

11. What I disliked most was:

Section Two: Reflect on the differences in completing traditional lab activities compared to the Pandora Box activities. Circle the best-fit answer.

12. The effectiveness of the box for your lab work compared to current instrumentation is:
Excellent Very Good Good Fair Poor Very Poor

13. Using your current instrumentation in the course and in the EE laboratory, how many hours per week have you spent on testing these experiments you did today?

Under 2 2-3 4-5 6-7 8-9 10 +

14. Assuming you can use the box in the course, how many hours per week would you spend on testing these experiments you did today?

Under 2 2-3 4-5 6-7 8-9 10 +

15. Assuming that the final box with PC controls can be taken home for testing experiments, would you do so? Why?

16. Assuming the final box is usable for all EE courses and a student would have to buy only one box for his/her entire study, how much would you or your family be willing to pay? [benchmark: a textbook for one EE course costs about $80-$100]

$_____

17. Assuming that the final box will be available for home use, would you use it more often for experiments (class experiments, your own tinkering, etc.)?
(a) Yes (b) No (c) use it just often enough to finish required class experiments

18. Assuming that the final box will be available for home use, would it enhance your education and experimental skills?
(a) Yes (b) No

Why: _____

19. We would like to contact you to test the final box in the near future. If you are willing to participate, please write your name and email below.

Name: _____ Email: _____

PC at home: (a) yes (b) no

20. Other comments:

THANK YOU!!!!!!!