Test Plan

Things to test:

1) LCD- Does it work with Buttons. Does it follow the instruction manual.
2) 7-Segment Display- Do the numbers light up and countdown and count upwards after reaching 0.
3) LED’s – do the LED’s light up and blink when needed.
4) Master communicate with slave.
5) Enclosed System testing.

LCD
1) Power on – welcome screen.
2) After 2 seconds – Menu screen
3) Only buttons 1, 2, 3, 4 should give a response. All other buttons should be inactive. Enter should only be activated after buttons 1–4 are pushed.
4) Follow instruction manual. Everything should be as described in there.
5) If the user try’s to enter an invalid entry, the input command should do nothing.
6) If the user enters a wrong number, he should be able to press the Clear button to clear it.
7) Is the backlight on and is it easily viewable in all lighting levels? Is the contrast set correctly?

7-Segment Display
1) Do all the numbers turn on.
2) Is the brightness the same when all numbers are on as when less than all are on.
3) Do the Digits count down and countup.

LED’s
1) Does the green light turn on when the countdown timer is counting down, up to the first warning time?
2) Does the Yellow light turn on at the first warning time? Does the Green light turn off?
3) Does the yellow light blink on and off at the second warning time until the countdown timer reaches 0:00:00?
4) Does the Red light turn on when the countdown timer reaches zero and the yellow light turn off?
5) Does the red light stay on until the system is stopped and/or rebooted?

Master and slave unit.
1) When the moderator presses Start, is the presentation length and warning times transmitted to the slave unit and the countdown timer begin to count down at the exact moment the master unit counts down.
2) Do the warning lights on both units turn on and off at the exact moment.
Enclose the system in its housing.

1) Test in the lab to ensure everything is working correctly.

2) Test in different rooms, including a flat room and a sloping room, with the master and slave at varying angles and distances. (JEB 104) Also, test in an area where there is a lot of people with cell phones, pda’s, laptops, and other electronic equipment. This is to determine if other electronic signals will interfere with the signal between the master and slave.

3) Test to make sure that the master 1 will only talk to slave 1 and not to slave 2.

4) Choose a person who doesn’t know anything about the project to program the master unit without instructions.

   Have a person program the master unit with the quick instructions that will be attached to the housing.

5) Test the system in the conference center in Spokane, where the WPRC will be held.