**Study Goals**

-Get feedback on: distinguishing different sounds of the burners, if the sonification helps them multitask between cooking and other, if the sonification is effective in letting users be aware of what is going on while cooking

**Study Design**

-Wizard of Oz evaluation

-Walk through a scenario with subjects

-Half control group, half test group

-Control group will run through procedure without distractions and only sonification

-Test group will run through procedure with distractions

-Ask subjects to think aloud

**Study Procedures**

Explanation of Design:

1. Explain to subject which sounds are associated with which location of burner
2. Explain to subject what changes are made to the sound of burners with the change of temperature
3. Explain to subject what the background music is for

Task

1. Ask subject to put pasta on boil on the front left burner and start playing the associated sound
2. Ask subject to put stew on the right left burner and start playing the associated sound
3. Right away, ask subject to put boiling water for tea on the left back burner and start playing the associated sound
4. Right away, ask subject to put egg on the back right burner and start playing the associated sound
5. The tester should look at the timeboard and modify the sound as it changes
6. Change the sounds as time goes on and ask the testers to think aloud of what they think is going on

Distractions

1. When the subject puts pasta and stew on the burner, ask them to go to the bathroom and wash their hands
2. When the pasta reaches boiling sound, call out from another room and stall them with a fake emergency: youtube simulation of people fighting (2min).
3. When eggs are done, ask them to get the door for an imaginary guest

Task for tester:

1. Burner 1 (Tea): (not on for 3min) 3 min-130, 4min- 180, 5min- 212, 212 afterwards
2. Burner 2 (Pasta noodles): 1min- 120, 2min- 160, 3min- 190, 4min - 212, 212 afterwards
3. Burner 3 (Egg fry): (not on for 3min) 4min- 150, 2min- 230 (egg in- drop temperature 50), 3min- 280, 4min- 320, 5min -360 should be done (will burn if not turned off
4. Burner 4 (Stew):1min- 100, 2min- 150, 3min(subject needs to turn the heat to low at this point - 180), 4min (if subject turn it down 160, if not 200) - turn the temperature up and down 30F until pasta is done

**Measurements and Survey**

During procedure, ask subjects to think aloud on:

1. Any thoughts about the tasks
2. What they think is nice about the sound system
3. How stressed they are - not really-some-very (measure at start, 5min in, and end)
4. What they do not understand or forgot about the sound (to see if they remember it or not, or to see if it is confusing)

After the procedure, ask subjects:

1. Was this audio system helpful for your cooking? hindering-neither-helpful
2. Did the audio sound effects distract your cooking? Yes or No
   1. If you answered yes for 2, how do you want it to be improved?
3. Were you able to notice the temperature change better with this audio system? Yes or No
4. Do you think it is easier to keep up with cooking while being distracted with tasks with the audio system? Yes or No
5. Were you able to distinguish 5 different sound effects? Yes or No
6. Do you want the sound effects to be delivered less frequently or more frequently? Less-good-more
7. What was the most helpful part of the sound system?
8. What was the most confusing part of the sound system?
9. Any comments?