Cameron Smith (310249856) Assignment 1

**Context:** I have decided to create a set of sounds that could be used within the average kitchen to add a further dimension to how people interact with and perceive their appliances.

1. **Stovetop - Artificial Gas:** This sound is designed to be used with electric and ceramic stovetops, to address the issue that when a burner is set to a very “low” setting, the user cannot easily determine whether the stove is on or not. This would also be a useful feature for preventing a serious hazard for the blind and visually impaired.

I wanted to design a sound that both reflected the assumed sound of a stovetop as well as something that wasn’t too annoying, that could blend into the background but still be present enough to be noticeably different from when the stove was off.

Listening to the sound of sausages cooking on the barbecue I noticed the sound was fairly similar to white noise, which I decided would be a good choice for the sound, as it would easily become background noise and not annoy the user of the oven.

Having listened to white noise, I decided it sounded too much like food was being cooked, and instead decided to alter it to sound more like a gas burner, achieving this by taking a recording of white noise and applying a high-shelf filter set at 1k, a bit of further EQ and a small amount of distortion.

2. **Toaster - Rise and Reminder:** This sound was envisaged as a simple little sound that would go off in the place of the traditional ‘pop’ of a toaster, as well as sounding every 30 seconds after that until the toast is removed to ensure it is not forgotten, as I have a habit of doing.

I decided the sound needed to act as a metaphor of the toast ‘popping’, and recreated this in the Vacuum Plug-In in Pro-Tools, by running the mouse over the on screen keyboard. I set up the rest of Vacuum to produce a sound that was friendly, slightly synthetic to reflect its use in a piece of machinery, and slightly distorted so that its sharp sound would grab attention.

I decided that, as the sound I had created represented the toast popping, a different sound was needed for the “reminder” alerts. Using the same Vacuum settings, to keep the tone sounding consistent and uniform, I recorded an impatient sounding three note melody, that will pester the user to collect their toast.

3. **Musical Scales:** This sound was envisaged as an audial representation of an item being weighed, for the kitchen scales. The idea is that two tones play, one reference tone that
represents the desired weight and one tone that plays relative to the difference between the desired weight and the actual weight, where a note an octave lower than the reference tone represents a weight of zero.

The use of the sounds makes it easier for the user to tell how much weight they have on the scale and makes it easier to fine tune to an exact amount. I created the simulation by recording a software midi keyboard twice, overlaying the reference tone with another note an octave lower and applying a pitch bend.

4. Grill Alarm: One of the most common problems with using a grill is that, due to it’s position you cannot easily see inside, and this often leads to burnt food. I decided to design a smoke alarm sound for a grill, so you can catch burning food before it fumigates the kitchen or sets the house alight.

Obviously the sound would need to grab people’s attention, so I took that into consideration when creating my sound. I also had to use a separate and distinct sound to that of a regular fire alarm, so as not to detract from the credibility of a real smoke alarm, during the regular near misses and "false alarms" that are bound to occur with a grill. I decided to use a sharp loud sound to grab attention and also modelled the sound on a baby’s cry, something which elicits dramatic attention in any person.

Using the Vacuum Plugin I created a sound that was high pitched, varying (modulating) and sharp with added noise to really make sure you can’t get distracted while this is playing, it will be your one and only focus to make it stop. I added a lower pitched bleep at the end of the siren to signify “crisis averted” and help sooth the user’s nerves.

5. Digital Kettle Whistle: The purpose of this sound was to simulate the 'whistle' of old kettles, with the gradual crescendo and decrescendo of a tone, but harnessing the power of modern technology so that the tone becomes more a pleasant experience than an ear piercing screech. The volume of the tone is regulated by the temperature of the water, until boiling point (100 degrees) is reached, at which point the sound fades out. The use of a high pitched chord not only serves to grab attention, but also ensures the alert is not drowned out by the rumbling of the boiling kettle, but rather compliments it.

To create this sound, I played and recorded a three note chord on a MIDI keyboard, then reversed the recording and time stretched it out for the crescendo, and pasted a copy of the original recording at the end for the decrescendo. I then applied a long reverb over the track to cover up any artefacts from stretching the sound, and to give the sound a more ambient feel.