

DECO1013: Sound Design and Sonification  
Assignment1: Functional Sound Design

When first beginning this assignment, I found it challenging to choose an innovative scenario to base the five sounds upon. There were numerous ideas that quickly came to mind; mobile phone alerts, alarms, cues for navigational devices and the sort. But what I wanted to try and achieve was to create sounds for a scenario that hadn't really been commonly addressed, but would still serve a practice purpose.

As a university student regularly using various modes of public transport, it's not always obvious to see the existing difficulties many other people face when it comes to the use of public transport. For those who are unfamiliar with our cityrail system, many times it is actually a rather challenging task to successfully acquire the right ticket, the right route, the right train and even the right destination. It can especially be observed that attempting to understand the interface for the train-ticket dispensing machine is in fact rather complex and confusing. Whilst helping an old lady struggling to find the right ticket on one particular day I suddenly realised that although the visual aspects of the interface can largely be improved, there is one additional feature that could be added to further help others to be more confident in their endeavours to purchase the right ticket, especially for first timers and others unfamiliar with cityrail. I decided to create sound cues to serve the functions of a cityrail train-ticket dispensing machine.

I began by dividing the process of acquiring a ticket into five parts, in order to create my five matching cues. Eventually – it was broken down to the following:

1. **Beginning the process:** *many people who approach a ticket-machine for the first time do not even know how or where to begin, often standing there waiting for an instruction. To solve this problem, I'm suggesting a page be initially presented with some kind of 'START' button (or any visual concept of similarity), that when pressed, takes the user to the main selections menu with a matching sound cue to affirm the user that they can now start the process.*
2. **Selecting ticket-type constraints via buttons:** *This process is fairly procedural and easy to follow. What most people need here is just a confirmation that the button has been pressed, as I've seen many people select what they need but continue to stand there waiting for an affirmation, not realising that their choice is visually displayed on the screen. Just a soft 'beep' after a button has been pressed should be enough to settle the matter.*
3. **If something goes wrong... :** *Without a sound cue to dictate where people have gone wrong, sometimes a simple message on the screen is not enough to alert users to the fact that they may have not put in enough change, or have put in too much change, or have chosen clashing constraints, or.. anything else, really.*
4. **Process completed:** *To simply verify the success in the completion of buying ones ticket.*

- 5. Picking up your ticket:** *Since the ticket dispense-box is situated so low on the machine, many unfamiliar users won't easily notice it's location and may waste those few valuable seconds figuring out where their ticket has gone, which may have been used to just catch their desired train. To help solve this matter, I propose my final sound cue.*

I then proceeded in creating the five sounds using the application Protocols and the Vacuum instrument. The process of sound creation was the most difficult aspect to this assessment, as often I found myself set upon a particular idea, only to realise I did not have the technical expertise to execute it the way I had hoped it to sound. Thankfully the result was what I had intended it to be, despite a few minor changes along the way.

The single wav-file sound simulation I submitted consists of the five sounds in the right order so it matches the process of buying a train ticket.

Sound 1 – I turned the VTO1 (under Mixer) down to make the sound softer. I also turned the volume and CUTOFF (under VT LPF) up a bit so the tone is soft and mute, but dynamically loud and warm enough to be heard. I also turned up attack and decay so the notes drop softly in a semi-rippling effect. The purpose of this sound is to indicate to users that they have begun the process. I used the three notes in a C-major triad in an ascending manner to generate a feeling of clarity and positivity.

Sound 2 – This sound serves the purpose of giving a sense of greater affirmation when choosing your ticket's constraints via the buttons on the touch screen. Here, the Drift (in box labelled Age, top right) and Attack turned down & Decay turned up. I removed the so the cue sounds like a gentle affirmation that you've done the right thing. I used a solitary C-note, happy bright and simple. The VTO1 (in mixer) is also turned all the way down for a warmer tone.

Sound 3 – This sound alert is for when something goes wrong. I turned the ARP on Vacuum on for a repetitive alarm effect and the MOD up high for a scratchy uncomfortable tone to catch the ears in a sharp way so users can immediately identify that they have made an error. I used two notes – an F# followed by a C – a tritone/augmented fourth for a musically dissonant effect.

Sound 4 – For this sound I simply turned SAT up (under VT SLP) to make the sound more grainy, solid and include higher octaves to more resolute as users would hear it when they've successfully purchased a train ticket. It is swift 2-second melody in C major to represent a cheerful accomplishment of acquiring a cityrail ticket.

Sound 5 – Last but not least, the final indication that alerts users to the whereabouts for their just-purchased ticket. I turned the ARP on and the FINE (on VTO One) down. The result is a light but low sound which acts like a musical usher to lightly point out that your ticket is in a little box at the bottom of the machine.

All in all I believe that I accomplished what I set out to accomplish and hope that the sounds appear to serve their designated purposes to others as much as it does to my own ears.