

# Reflection DCM180

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This course was my first experience with sound design, and I must say it has been very interesting! Sound feels like an under-considered part of design, almost like a totally separate profession. However, this course has shown me that it is in fact possible for “regular” designers to design with sound as well, and consider it as a modality much like we already consider the tangible and visual modalities. Sound is an excellent way to provide information to users, and including the sound modality in a design is a good way to off-load some information from the other modalities (mostly the visual one) and provide a better experience to the user.

I am glad that the course provided a gradual introduction to sound design through the weekly homework, starting with the audiocummentary. This was a good exercise to start listening carefully. It has helped me understand that sounds actually contain a lot of information that you might at first not think about. People can instantly recognise familiar sounds, such as someone’s voice or the way someone walks, or even a familiar object. The material can also be heard in the sound, and very practiced (blind) people can even hear if there’s a wall or other silent object in front of them based on how the sound reflects from it. Receiving the information in sound often relies on familiarity or practice, meaning that it is possible for some people to not receive the information despite hearing the sound.

After that, I initially had no idea about how to get started on designing sounds, but luckily there was an introduction to Max/Plugdata, along with pre-made patches which can be used to edit sounds. This provides a way to easily adjust the speed, pitch, duration, and volume of a recording, offering a lot of handles to design sounds. I have tried a lot of different things with the Sampler patch, resulting in various insights. Adjusting the pitch feels like an effective way of communicating a level of some kind, such as the level of an induction stove or the change in account balance when paying. I also like using repeating sounds, instead of short sounds which happen only once. Like the shop in the Lucid memberspace, which constantly makes a background noise when opened and intensifies when someone comes close. I believe that sounds that last during the whole interaction are a richer source of information than short sounds after an interaction, which are only useful as a form of feedback. This learning really changed the way I perceive sound design and how I will use sounds in future projects as a way to provide information and feedforward, rather than just feedback.

This leads me to how I will use sound design in the future. I feel like I am certainly not finished exploring the capabilities of sound, and will continue working with it. I feel like the design space I am most interested in, the smart home, does not make much use of sound and has a lot of open potential for sound. The only real use-case for sound which currently exists in smart homes, is smart speakers with text-to-speech. If the user needs to be alerted of something, text-to-speech can verbally provide information. Short beeps and boops as confirmations are also common, but current smart home devices do not make much more use of sound, which is a shame. After having followed this course and having come to the realisation that sound can be a very valuable addition to designs, I will certainly keep this modality in mind along with visibility and tangibility. I am sure sound can have very interesting use-cases going beyond simple feedback and text-to-speech, and I am looking forward to finding out more about them.

This course has provided me with awareness about what can make sound useful in designs, some theoretical knowledge about harmonics and how sounds can feel, and tools to start exploring and designing with sounds. This is a very valuable addition to my repertoire as a designer and can be combined well with my already existing musical (mostly rhythmic) knowledge and skills I have gained as a drummer.

Designing sound for a system of smart things, a smart home could also be defined as such, is more complicated. I can see how it would be valuable, it could make a system and its rules more understandable, but it is hard to achieve. I think it is beneficial for each object to have its own recognisable sounds, because if everything sounds the same it would be hard to understand what's happening. If everything has its own sound, it might become more difficult to audibly explain a connection between objects, but this course has led me to believe there are ways to do it. In our video where Miffy and Rat became friends, we attempted using a call and response for this, where one "plays" a rhythm that sounds unfinished (for example by ending on an eighth note instead of a quarter note) and the other responds with a similar rhythm which does sound finished. In our video from the Lucid bar, I attempted another approach by having the store and bar repeat the same rhythm, but each using their own sound. Although I do not think there is one definitive way to use sound in a system of smart things, this could be one way to do it.

In this context, I would like to explore the directionality of sound more in the future. This was hard to do in a video, but in a physical space it is much easier to tell where a sound is coming from. Especially in something like a smart home, directionality becomes a very interesting additional property for sound design and is certainly something I would like to explore further.