

## Description of Patches

[File:exercise1\\_sa.maxpat](#)

In this file we experiment on how to generate sound. It uses metro and a sequencer and three different frequencies.

[File:Frequency\\_dimmer\\_exercise2\\_sa.maxpat](#)

In this patch the frequency of the sound in the max patch gets controlled via input by Arduino. As sensor we used a photo sensor; the intensity by which the photo sensor receives light will control the modulation of the sound in max patch.

[File:exercise3\\_graphics\\_controlling\\_3D\\_object\\_sa.maxpat](#)

In this patch you can move a 3D object on the screen in a 3D space by controlling it via Arduino input. In this case the movement is controlled by only a single cable to induce movement of the object on the x, y and z axis. As the input is only one single cable the values are manipulated by calculating functions to obtain three different outputs to move the object accordingly.

[File:Extrusion\\_simplified-m.maxpat](#)

work in progress for video mixer with jit.gen sub patch in attempt to control color parameters

[File:3 crossfade final sa.maxpat](#)

This file is a video mixer.

It has three image inputs; i.e. the webcam, video 1 and video 2. The intensity of the amount of merging of the different input sources can be controlled by a slider. That way different effects can be achieved and manipulated. To not only work on screen but to implement input controls via the physical environment the slider can also be controlled by Arduino sensors over serial communication; in this case the slider is controlled by a photo sensor.