

## ELECTRONIC INSTRUMENTS: WEEK 1 TASK

### Submit a Pure Data (PD) patch that:

- Automatically prints your name to the print window once every half second, for a total of 10 iterations i.e. print 10 times and then stop.
- Uses [osc~ 100] in combination with [line~] and [\*~] to synthesize a simple 'bass drum-like' tone every time your name is printed

### HINTS

- The first part will require [metro] and [print] as well as a message box and toggle
- You will then need [select] and [float] configured with [+1 ] as well as a means to stop the count after 10 iterations – perhaps send [toggle] a zero message and reset the float too...?
- Check the help file re. [osc~] and be aware that if you send it a zero it will try and play zero hertz – which can be a cause of much silence and confusion!
- For a 'bass drum-like' tone try a very fast attack (even zero if you like the click), a delay of 50ms is perhaps suitable for hold, then whatever release time you prefer – this is where [line~] and [\*~] come into play, and you will need to understand banging message boxes too....

### BASICS

- Patch must fulfil the above (i.e. it must work!)
- Patch should be neat and easy to understand (use cursor keys to line up objects and keep connections vertical)
- Readability is VERY important: bonus points for large toggle with nice coloured background and use of 'send' and 'receive' to keep patch super-neat

### IF YOU GET STUCK

- With pure data open, navigate to help/browser/Pure Data/2.control examples and familiarise yourself with the first 11 examples (01-11)
- Then use the same method to navigate to audio.examples and familiarise yourself with the first 10 examples (A0-A10)
- The agenda is to get familiar with the above examples – keep referring to them!
- Remember you can also right-click objects for additional help
- Make sure not to forget '~' for audio signals

### WANT TO GO FURTHER?

How would you change number of iterations or pitch of bass drum dynamically?  
How could this be made more musical?

### CRITERIA AND MARKING

- Technical success of patch;
- Creative/musical success of patch;
- Clarity of understanding as evidenced by annotations within the patch.

### WHERE DO I GET THIS SOFTWARE

<http://msp.ucsd.edu/software.html> Pd-0.46-6 (or maybe now Pd-0.46-7). Colloquially known as the vanilla release. This is the only link to trust the only version to use. You will find mention on the Internet of an extended version of Pure Data – this is no longer being developed, has a variety of problems.... Stay away!