

ELECTRONIC INSTRUMENTS: WEEK 2 TASK

Submit a Pure Data (PD) patch that:

- Allows the recording of audio from an external source such as a microphone;
- Allows stereo/dual mono audio to be played at a variety of static pitches (playback speeds);
- Is controllable via MIDI or the computer keyboard (not just mouse clicks).

HINTS

- You will need to use two separate arrays (from the put menu), I suggest that you initially size them each to be 44100 samples (1 second) long;
- [adc~] should be used to get sound into the computer;
- [tabwrite~] to write to the arrays;
- Play audio using [tabread~] and [line~] with a message box attached;
- ADDITIONAL CLUE: a message containing [0, 44100 1000] will cause line to ramp from sample 0 to sample 44100 in 1000 milliseconds i.e. when connected to [tabread~] this should play one second of audio at the same speed/pitch at which it was recorded;
- What other numbers might you try in the above message box? How could you change the direction or the speed of playback?
- You will either use some form of MIDI input such as [ctlin] or [notein] or use qwerty keyboard control via [key] or [keyup] – we didn't cover qwerty keyboard in class so I attach an example.

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 toggles, use of colour, [send], [receive], [throw~], [catch~] ...in short, keep patch super-neat!

IF YOU GET STUCK

- Navigate to help/browser/Pure Data – see control examples and audio.examples;
- Remember you can also right-click objects for help files on each object;
- Make sure not to forget '~' for audio signals.

WANT TO GO FURTHER?

Use [soundfiler] to read audio into additional arrays i.e. use [read filename.aiff array#] in a message box; as long as the audio file is in the same path/folder as the PD patch it should load and you can play it back using a variety of approaches (put patch and audio in one folder and zip/archive it before uploading, all submissions must be under 7MB).

CRITERIA AND MARKING

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