Digital Signal Processing
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Proposal

Objectives

1. Create numerous continuous waves
2. Code that can take input function and apply a response
3. Code that plots the input function and effected function
4. Running code that creates wav files
5. Stretch goal: Real time manipulation
6. Stretch Goal: analogue interface that can produce signals as an independent source.

Objective status

1. Complete. We generated each major wave form (triangle, square and sinusoidal)
2. Complete. We created numerous effects such as distortion, chorus, tremolo, slider, and a few of our own invention.
3. Complete. We plotted graphs of the traditional wave and the outgoing effect for each effect.
4. Complete. This code can be seen in the Wizard_Code folder. Inside this folder is the Plotting_WaveForms folder which converts our effects to wav files.
5. Complete. “Pure Noise” software and raspberry pi set up allows for real time manipulation of an input wave (such as through a microphone)
6. Complete. The raspberry pi microcontroller was used to manipulate real time sound.