Test Plan

Each major component (delay, filter, chorus) will first be tested individually to verify it functions correctly.

With the delay, the only non-trivial feature to test will be the tap tempo. Seeing as we will use a timer to implement the tap tempo, we can have the timer output values as one presses the tap tempo button. We can compare these times to the actual delay time by examining variables in the debugger, and to the BPM value on the screen through simple unit conversions.

The low pass filter will be tested using the method of project 2: we will plot the frequency responses of unfiltered and filtered impulse signals in Audacity.

The chorus has a few components that will be tested individually. We will first implement the chorus without the panning modulation, and verify that the delay time is changing according to the LFO's value. This testing will parallel that done in project 4. Next, we will remove the chorus, implement the LFO-based panning, and test whether a basic signal is panned linearly based on the period of the LFO. We will then add both components of the chorus together. If they work correctly in conjunction, the speed/period of the panning should match that of the delay change.

Finally, we will connect these components one by one and verify that they all still function properly and produce the desired output signal.