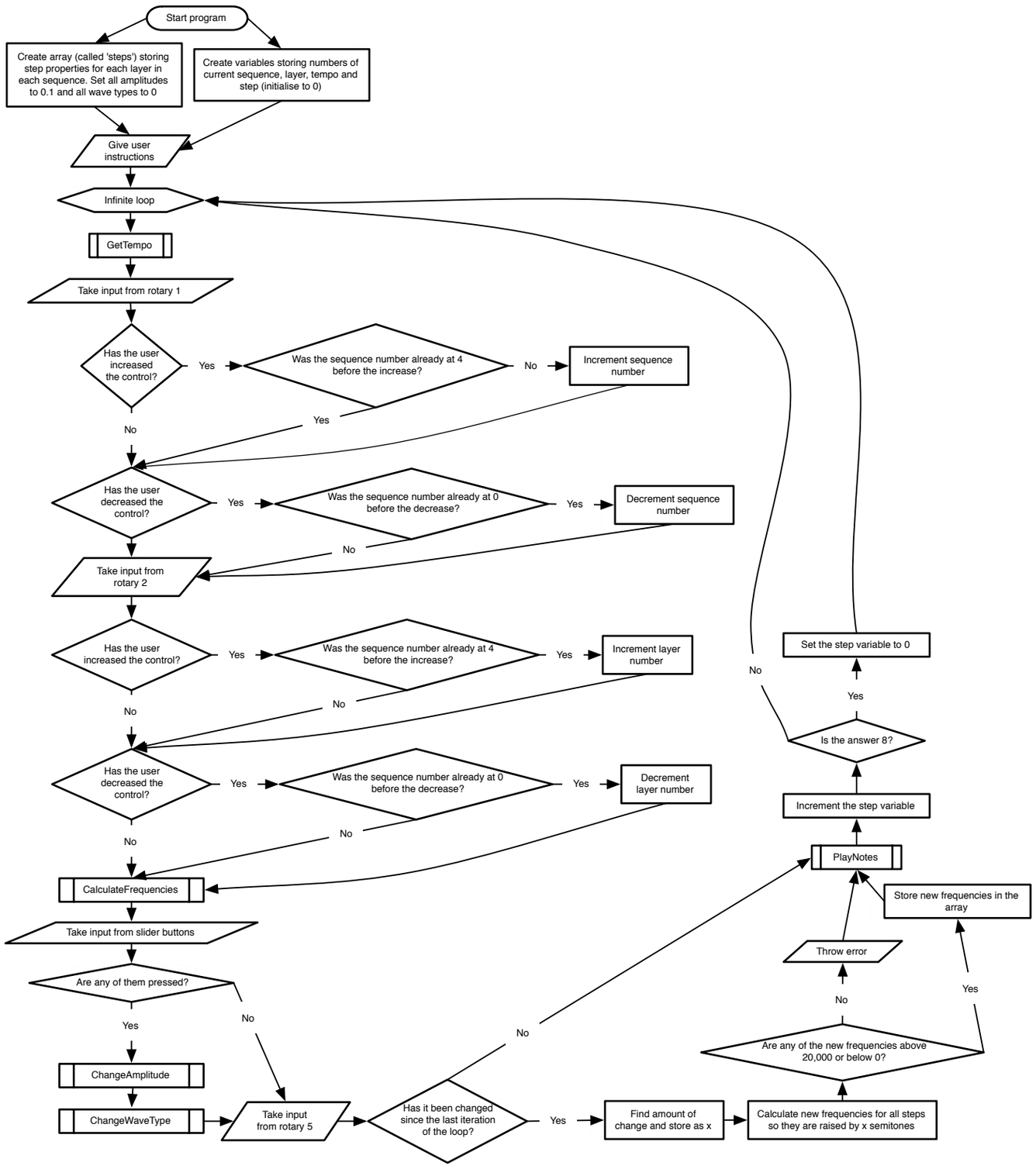
Rationale:

The program can store up to 5 sequences. In each sequence, the user can access up to 5 layers. In each sequence is 8 steps. All data is represented in a multi-dimensional float array. The properties for each step are frequency, amplitude and wave type (sine/square/saw), which the use can change. The frequencies can be locked by using a button.

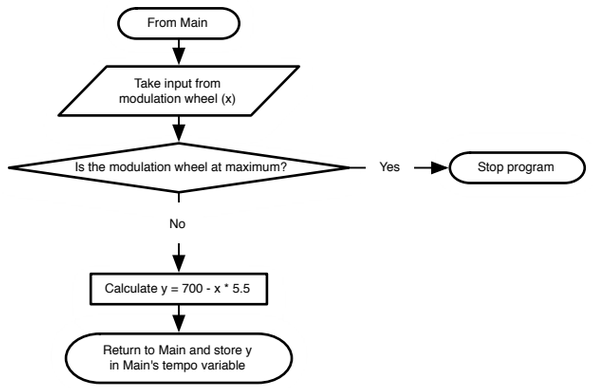
The user can change between sequences and layers in real time. They can also transpose a layer and change the tempo of an entire sequence.

The user can change the above parameters using the following controls on the Impulse controller:
Rotary encoder 1 = change sequence
Rotary encoder 2 = change layer
Rotary encoder 3 = change amplitude
Rotary encoder 4 = change wave type
Rotary encoder 5 = transpose layer
Sliders = set frequency of each step
Buttons under each slider = set encoders 3 and 4 to control the step corresponding to that slider
Button 9 = lock sliders
Modulation wheel = change tempo (or set to maximum to stop the program)

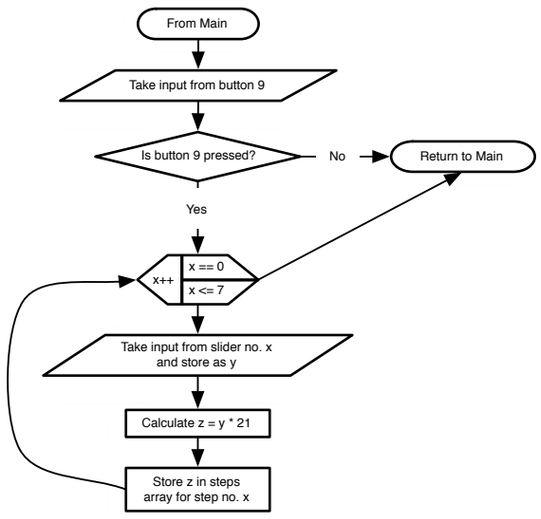
Main function:



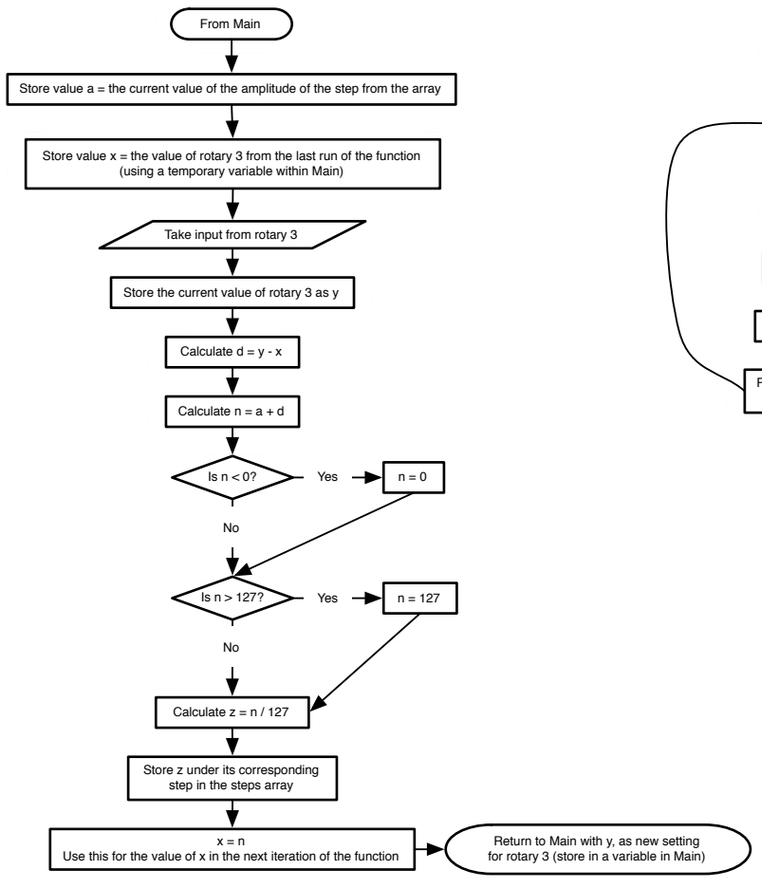
GetTempo function:



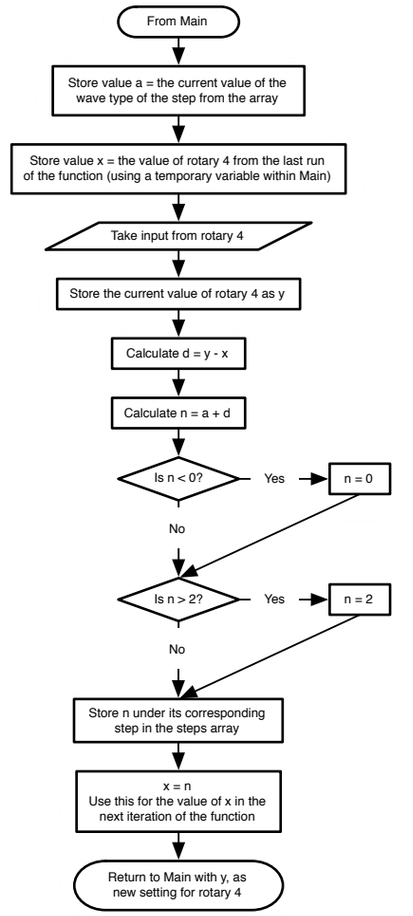
CalculateFrequencies function:



ChangeAmplitude function:



ChangeWaveType function:



PlayNotes function: