



WAVEX

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PROJECT DESCRIPTION

Virtual Software Synthesizer

Used to design and generate sounds for music production

Standalone and VST format

Compatible with most DAWs (digital audio workstations)

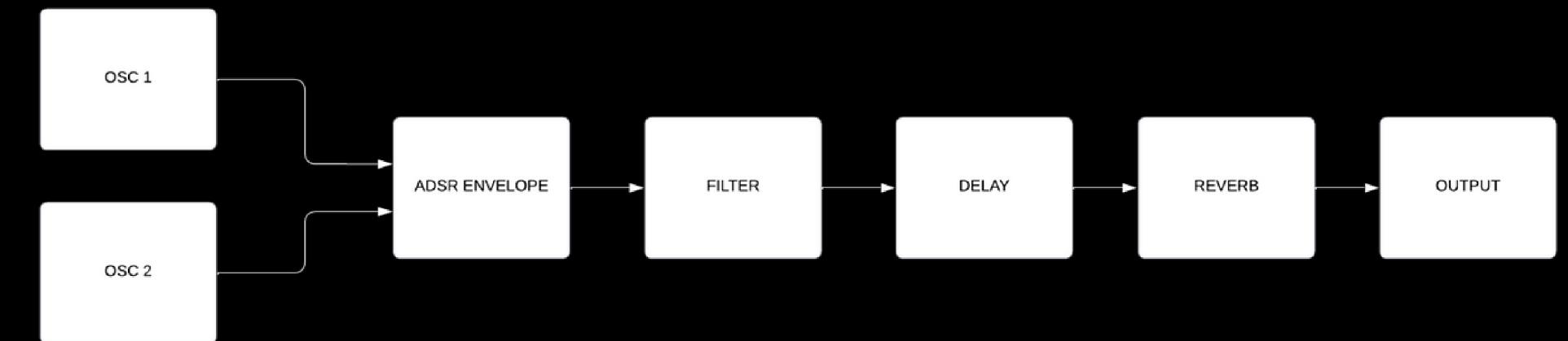
Audience

Music producers and sound designers

PROJECT GOALS

Implement Basic Synth Features

- 2 oscillators with 3 waveform types
- ADSR envelope
- Filter
- Reverb and delay effects
- 8 voice polyphony
- Waveform visualizer
- GUI Keyboard



PROJECT JUSTIFICATION

Music Background

- Experience with VSTs for music production

Explore DSP Programming

- Expand upon C++ skills in a new context
- Learning the JUCE framework

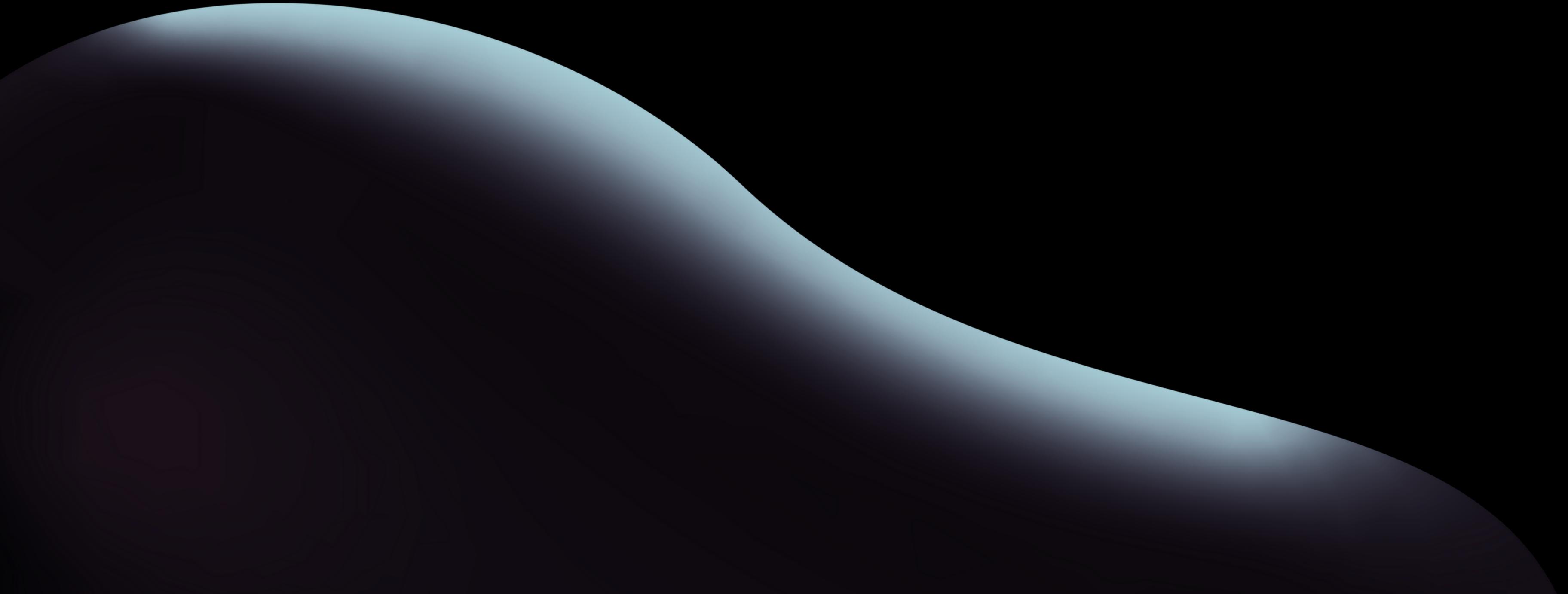


JUCE

USER INTERFACE



DEMO



PROJECT CHALLENGES

Limited Resources on JUCE / Audio Programming

- Most are for effect plugins
- Trial and error for implementing synth features such as polyphony

DSP Programming is delicate

- Lots of crackling and artifacts

QUESTIONS