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DSPDude Checklist

**Minimum Goal**

- Be able to generate sine waves of different frequencies on the FPGA
- Be able to output different waves on each channel of the codec

**Realistic Goal**

- Have a working audio passthrough: SPDIF input to the AK4117, passes through the FPGA, gets sent to the codec which outputs left and right channel sound
- Be able to control volume on the codec through switches on the Nexys4

**Stretch Goal**

- Generate and store FIR coefficients on an SD card
- Have a working FIR filter module on the FPGA that uses the coefficients on the SD card to filter incoming audio data from the AK4117 before sending it to the codec
- Display system volume on the VGA