

Goals

The project is divided into three achievement levels: commitment, goal, and stretch. The description of these levels are as follows.

Commitment

The commitment goal includes everything needed to hear the basic Supersaw waveform in stereo and monitor it with the display. The following modules apply to this level: **PSoC ADC**, **Deserializer**, **State Machine**, **Oscillator**, **Supersaw** (to be further subdivided), **Amplifier**, **Offset**, **CS4344 DAC**, and **Display**.

Primary

The primary goal includes the commitment modules plus the **Octave Select**, **Equalizer**, **Filter**, **Envelope**, and **LFO** modules. This represents what we believe to be the most useful addons to the core of the project.

Stretch

The stretch goal includes all of the above plus the **Arpeggiator**, **Delay**, **Reverb**, **Noise Generator**, and **Partial Detune** modules. These are features that have the potential to create the richest, most pleasing musical palette but which have an uncertain requirement on time investment.

Responsibilities

We plan to subdivide the labor for the project according to our individual skill sets. Isabelle has experience with mechanical layout and drafting, serial data encoding/decoding, and graphics, so she will spearhead the construction of the analog input control panel, code the **Deserializer** module and **ADC Host** module, and the **Display** module. Jacob will apply his understanding of analog circuits and music theory to implement as many of the other modules as possible. We foresee sharing the coding burden as much as possible.

