

Id 1

# Create Website

User story

*As a visitor I go to the website to access the synth.  
(simple HTML page, HTTP server)*

Importance

How to test

*The visitor can access the synth website*

Estimate

Id 2

# Play keys

User story

*As a visitor I push keys to play notes. (JS binding sound function to keypress and mouse click, or use the keyboard)*

Importance

How to test

*The visitor will hear a sound when a key on the PC keyboard is pressed/ a key on the GUI is clicked.*

Estimate

Id 3

# Polyphony

User story

*As a visitor I want to be able to play multiple notes simultaneously, aka polyphony.*

Importance

How to test

*Pressing two or more keys should make a sound of the superposition of the two notes*

Estimate

Id 4

# Create waveform

User story

*As a visitor I type a mathematical function to create a periodic waveform. (String parsing, Probably JS)*

Importance

How to test

*entering a valid mathematical function into the field will result in the function being successfully parsed.*

Estimate

Id 5

# Display waveform

User story

*As a visitor i want to be able to view the graph of the wave. (Graphical representation)*

Importance

How to test

*The above entered function should be plotted in a visually appealing way.*

Estimate

Id 6

## Create envelope

User story

*As a visitor I type a mathematical function to create an envelope. (Graphical representation)*

Importance



How to test

*Entering a valid mathematical function will give an envelope that can be used for various parts of the sound generation. There will be limitations put in place.*

Estimate



Id 7

# Display envelope

User story

*As a visitor i want to be able to view the graph of the envelope. (Graphical representation)*

Importance

How to test

*The envelope is plotted in a visually appealing way.*

Estimate

Id 8

# Change amplitude

User story

*As a visitor I create an envelope to change the amplitude. (Sound editing)*

Importance

How to test

*After entering a valid envelope, the amplitude of the sound will be changed accordingly*

Estimate



Id 9

# Change pitch

User story

*As a visitor I create an envelope to change the pitch. (Sound editing)*

Importance

How to test

*After entering a valid envelope, the pitch of the sound will be changed accordingly*

Estimate

Id 10

# Change timbre

User story

*As a visitor I create an envelope to change the timbre. (Sound editing)*

Importance

How to test

*After entering a valid envelope, the timbre of the sound will be changed accordingly*

Estimate

Id 11

# Save synth settings

User story

*As a visitor I save the settings of the synth to use it later. (Cookies/long url)*

Importance

How to test

*After closing a session, opening the session again should load the settings of the last session.*

Estimate

Id 12

# Piano Roll

User story

*As a visitor I want to have a graphically interactive piano roll so that i can compose musical scores.*

Importance

How to test

*Visitor can "click out" notes on a piano roll that will play continuously.*

Estimate

Id 13

# Multiple Synths

User story

*As a visitor I want to add multiple synths that can play simultaneously in the piano roll.*

Importance

How to test

*The visitor can "click out" notes from multiple different synths that will play.*

Estimate

Id 14

# Audio Recording

User story

*As a visitor I want to be able to record and save myself playing on the synth. (MP3 Generations)*

Importance

How to test

*Pressing a "record" button should take in the inputs and generate a mp3 file that can be listened to.*

Estimate

Id 15

# MIDI Keyboard

User story

*As a visitor I want support for a MIDI keyboard that is connected to my computer that has opened the website. (MIDI interface)*

Importance

How to test

*Having a plugged in MIDI keyboard should function and play notes like the regular PC keyboard.*

Estimate