

# HARMONIC TENSION VISUALIZER

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# PIANO ROLL

	Maj7	7	Min7	7	Min7	Min7	Chord type	Chord type
B4								
A#4								
A4					Amin7			
G#4								
G4			Gmin7					
F#4		F#7						
F4	Fmaj7							
E4								

- Input chord progression
- Automatic selection
- File upload
- Dynamic scrolling



# TOOLBAR



- Info
- Progression reproduction
- Volume
- Reset
- Download/Upload



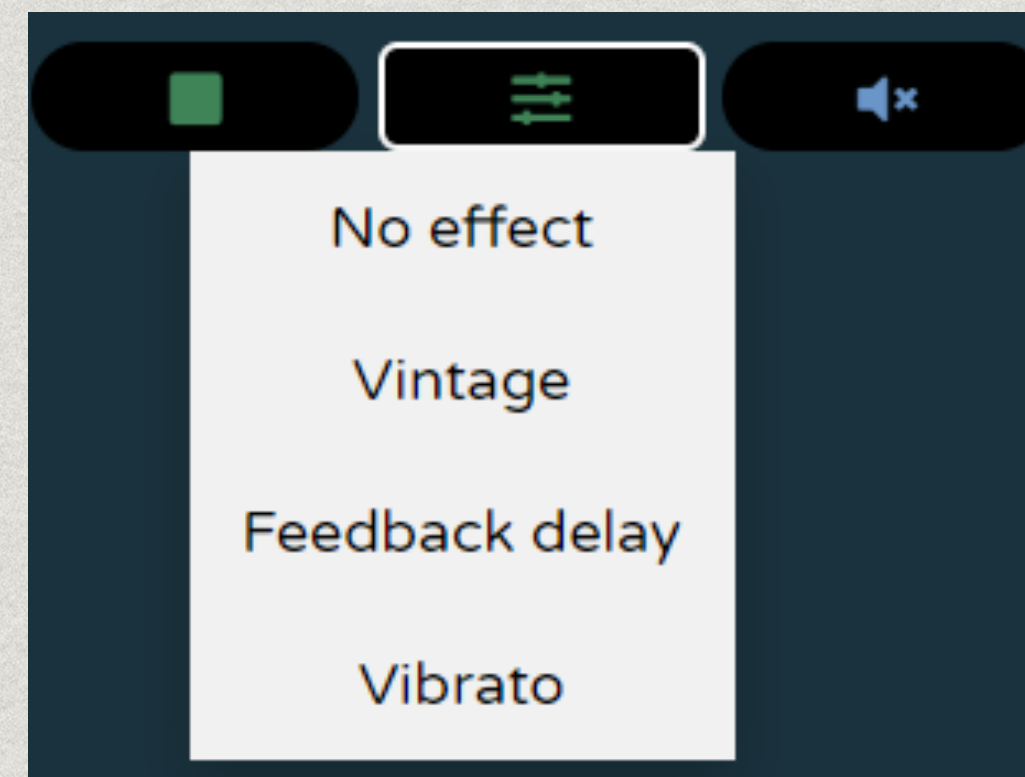
# TONE.SAMPLER & TONE.JS

- Multiple notes played simultaneously
- “Sampler object” and binding
- Output connection
- TriggerAttackRelease

	Min7	Major
A#2		
A2		
G#2		
G2		
F#2		
F2		
E2		
D#2		
D2		
C#2		

## Effects

- Vintage Distortion
- Vibrato
- Feedback delay



```
let sampler = new Tone.Sampler({
  "C2": "./piano/C2.mp3",
  "C#2": "./piano/Cs2.mp3",
  "D2": "./piano/D2.mp3",
  "D#2": "./piano/Ds2.mp3",
  "E2": "./piano/E2.mp3",
  "F2": "./piano/F2.mp3",
  "F#2": "./piano/Fs2.mp3",
  "G2": "./piano/G2.mp3",
  "G#2": "./piano/Gs2.mp3",
  "A2": "./piano/A2.mp3",
  "A#2": "./piano/As2.mp3",
  "B2": "./piano/B2.mp3",
  "C3": "./piano/C3.mp3",
}).set({
  "volume": Volume,
}).toMaster();
```

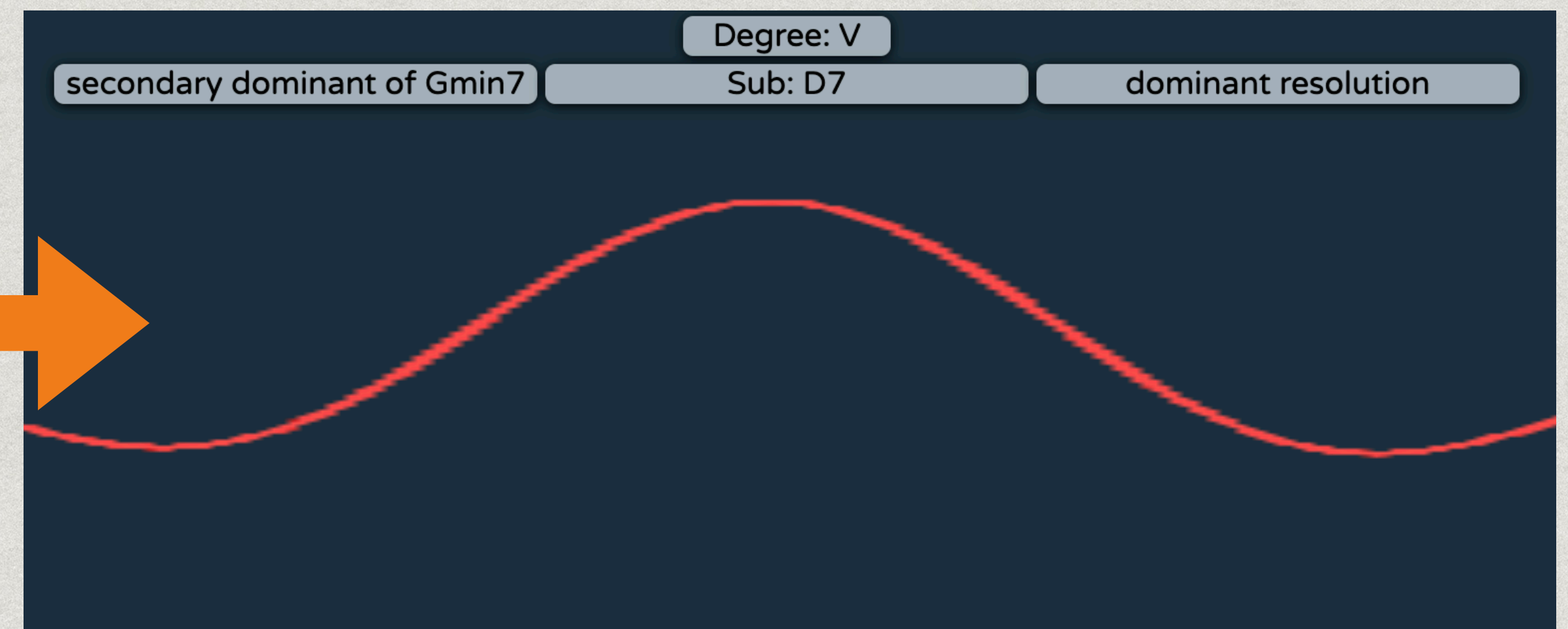


# HARMONIC ANALYSIS



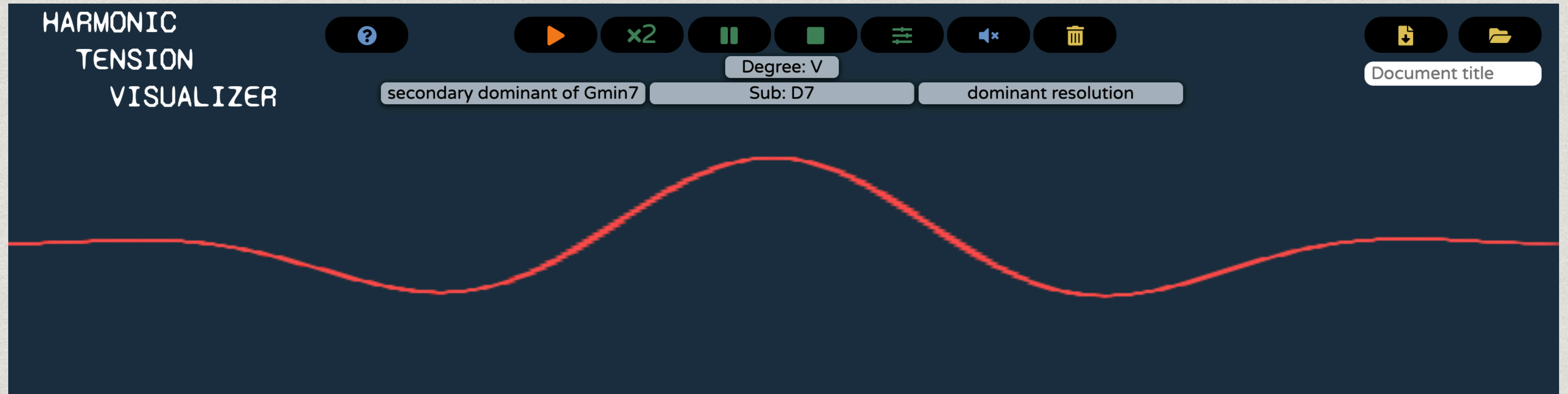
harmonicAnalysis.js

- Step 1: Estimate possible keys
- Step 2: Analyze “wrong” chords
- Step 3: Assign tension, find patterns





# GRAPHIC REPRESENTATION



- Canvas
- Wave construction
- Degree, pattern and substitution info



# VIDEO DEMO:

<https://youtu.be/JRw4pi4h1TY>

# WEB SITE:

<http://harmonytensionvisualizer.surge.sh>