

# Canticum

bowed guitar and live electronics

Taylor Brook

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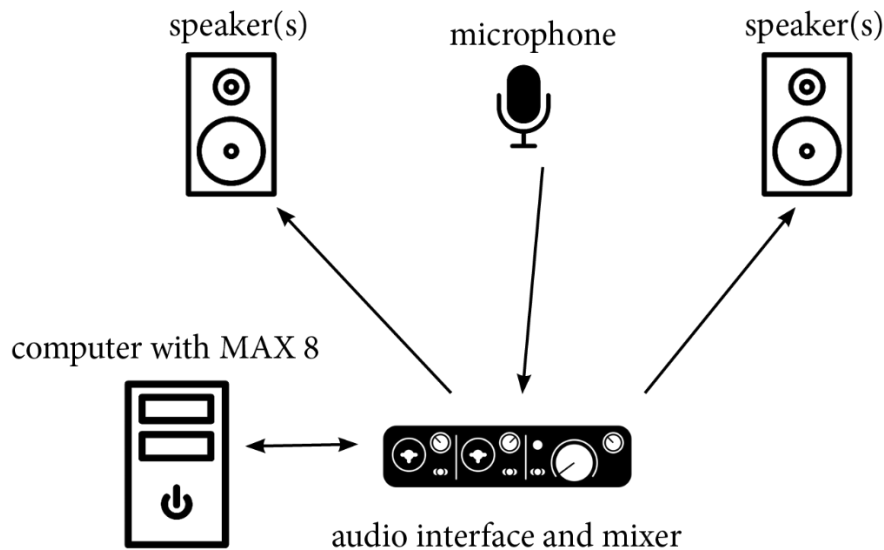
### Summary

Canticum is a musical performance piece for bowed guitar and live electronics in the form of a MAX 8 patch.

The electronics are stereo by default but can be easily to any type of surround sound system.

To perform canticum, the musician performs a guided improvisation on bowed guitar while running the patch, which generates the electronic part dynamically through a variety of machine-learning-based processes.

### Audio Setup Diagram



### Required Gear

computer

- MAX 8.3 or newer

- flucoma library for MAX (available from the MAX package manager)

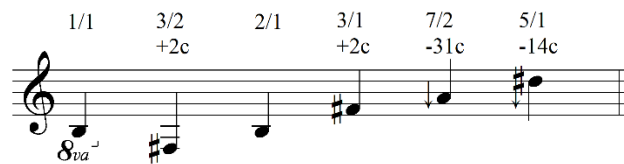
audio interface (2x2 minimum)

2 loudspeakers or more

microphone (AEA N22 ribbon recommended)

## Performance

For the live bowed guitar part, I suggest using the following tuning, but any tuning, especially one that is centered on the note B, is fine to use.



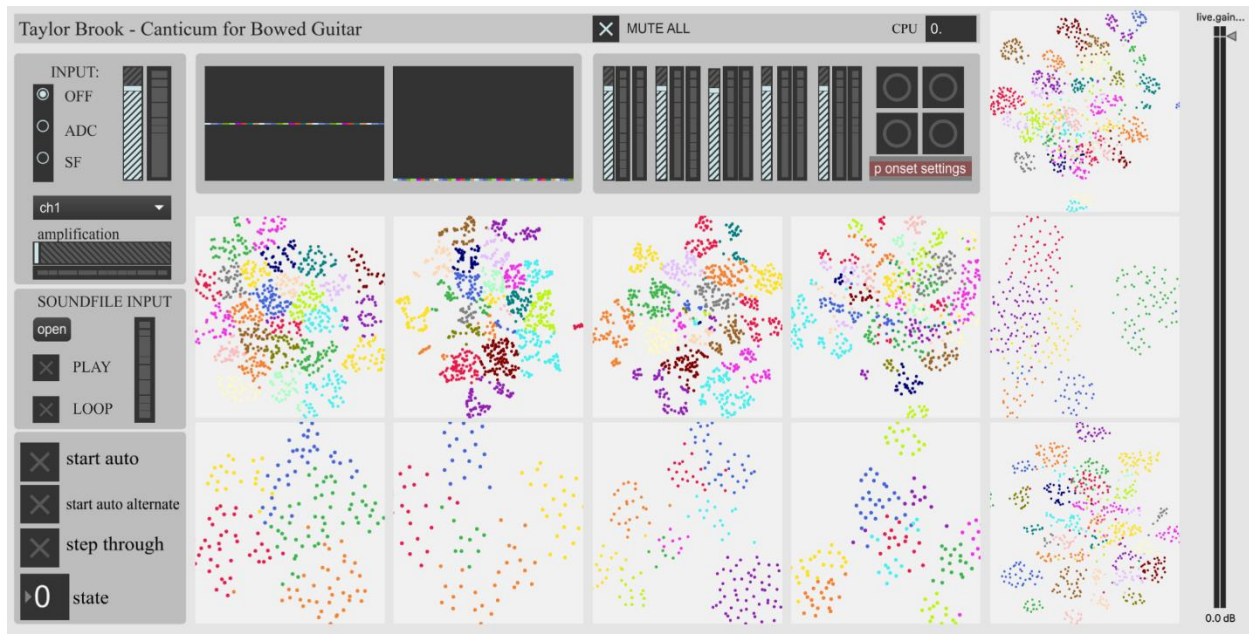
To bow the guitar, take approximately 30 strands of bow hair and tie a know at each end to hold them together in a bunch and apply rosin to them. Take these bow hairs and weave them under whichever guitar string you wish to bow. Bowing the guitar strings may feel unreliable and awkward at first, but with some experimentation with the pressure, speed, and angle, it won't take long to be able to develop the technique.

Any of the strings can be bowed in any order and in any combination. The performer is encouraged to shape the performance in any way they please. No duration is specified, but at least ten minutes is suggested and longer performances are encouraged. My performances of the piece last approximately twenty minutes and can be found here:

<https://www.taylorbrook.info/canticum>

## MAX operation

The Flucoma library must be installed for the patch to operate. This library can be added through the Package Manager within max or installed manually from [www.flucoma.org](http://www.flucoma.org).



The patch is easiest to operate in Presentation mode. Once launched, the user only needs to select the input, enable audio, and select one of the three performance modes to begin. The first two modes (“start auto” and “start auto alternate”) will automate changes in patch behavior in reaction to the incoming microphone signal. The “start auto alternate” mode is generally less active and calmer in mood than the “start auto” mode.

The third mode is labeled as “step through,” where a MIDI foot pedal or other trigger can be used to step through various behaviors of the patch.

The patch is freely editable and I encourage anyone proficient in MAX to explore and make changes to the patch as they please, though this is not at all necessary.