LovelyHeart

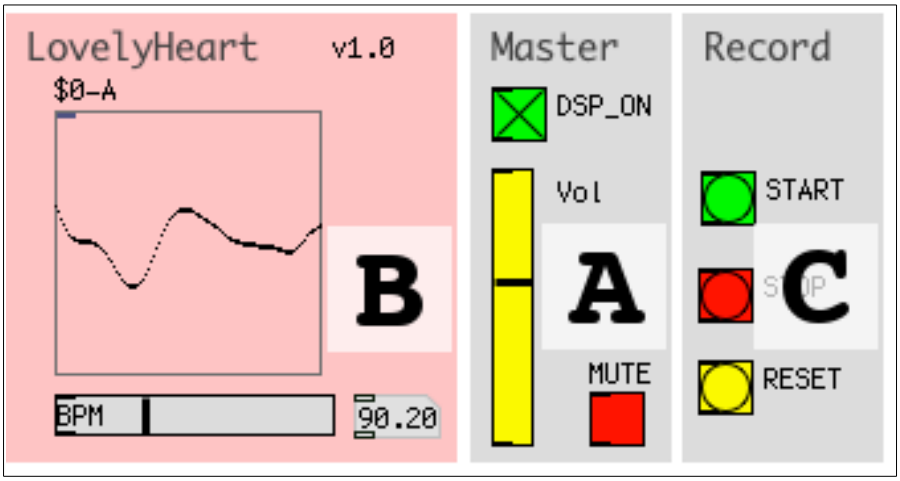
heartbeat sound synthetizer

Intro

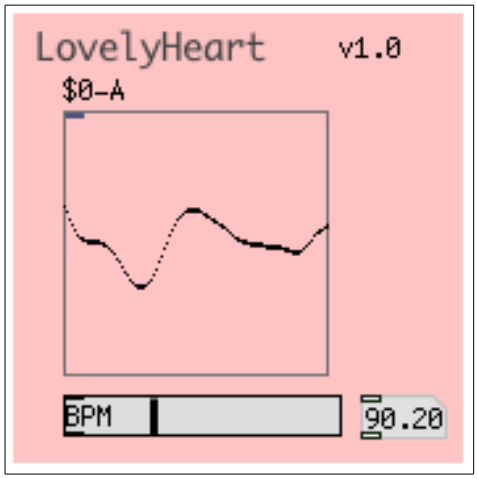
LovelyHeart is a PureData procedural synthetizer patch useful if you need to simulate the heartbeat sound.
LovelyHeart can also be controlled via keyboard or via MIDI.

Licenses

Quickstart



1. Click on the *Master* section `DSP_ON` toggle to activate audio computation. Click on the `MUTE` toggle to deactivate mute on master output (you can also press the spacebar), eventually adjust the master output volume via `Vol` vertical slider (**A**);
2. In the *LovelyHeart* section (**B**), use the horizontal `BPM` slider to change the heartbeat frequency.

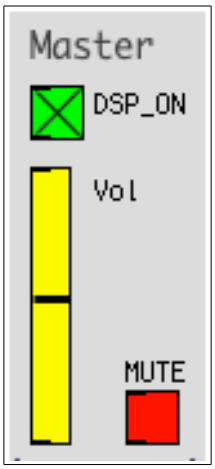


Main section

In this section you can control the heartbeat beat per minute frequebcy (BPM) and see the output sound waveform.

Use the `BPM` horizontal slider to modify the heartbeat frequency. You can vary it from a minimum value of 50 BPM up to 180 BPM.

In the array you can preview the ouput waveform.



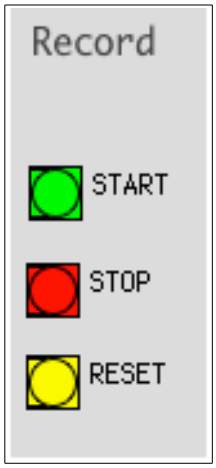
Master section

The *Master* section allows you to start the DSP computation, master output mute and volume.

Click on `DSP_ON` toggle to activate/deactivate DSP computation.

Adjust the master output volume by dragging the `Vol` vertical slider cursor.

Click on the `MUTE` toggle to mute/unmute master audio output. You can use the spacebar instead.



Record section

The *Record* section allows you to record the patch audio output on audio files.

These files will be .wav audio files with these characteristics:

	name	ch.	description
file 1	#_mix.wav	mono	the heartbeat sound made up of its two sound components: beats and murmur.
file 2	#_beats.wav	mono	only beats component
file 3	#_murmur.wav	mono	only murmur

where, "#" sign stands for a number that is the progressive id of the recording.

Before starting the recording, be shure you have created the "sounds" folder at the same level of the *LovelyHeart* patch in your file-system.

Sampling rate of the recorded files will be the same as the DSP one.

Click on the `START` button to start a new recording.

Click on the `STOP` button to stop the recording and consequentely to create the corresponding audio files inside the "sounds" folder.

In case you want to create consecutive recordings it suffices to click the `START` button several times: the `START` button will actually stop the previous recording, automatically creatiting the corresponding audio files, and starting a new recording at the same time.

Use the `RESET` button to reset the recordings counter to 0.

Note: Pay attention and always backup you recording before resetting because a new recording, started just after a reset can overwrite other audio files with corresponding names inside the "sounds" folder.

Note: recording volume will not be influenced by the the `Vol` control in the *Master* section, this is a listen control only.

MIDI control feature

LovelyHeart can be controlled via MIDI protocol.
This table indicates the correspondences between MIDI Continuos Controls and synthetizer parameters:

# CC	Parametro synth
1 (modulation wheel)	heart BPM

You can modify the MIDI behaviour by editing the MIDI subpatch, within the *Main* section.