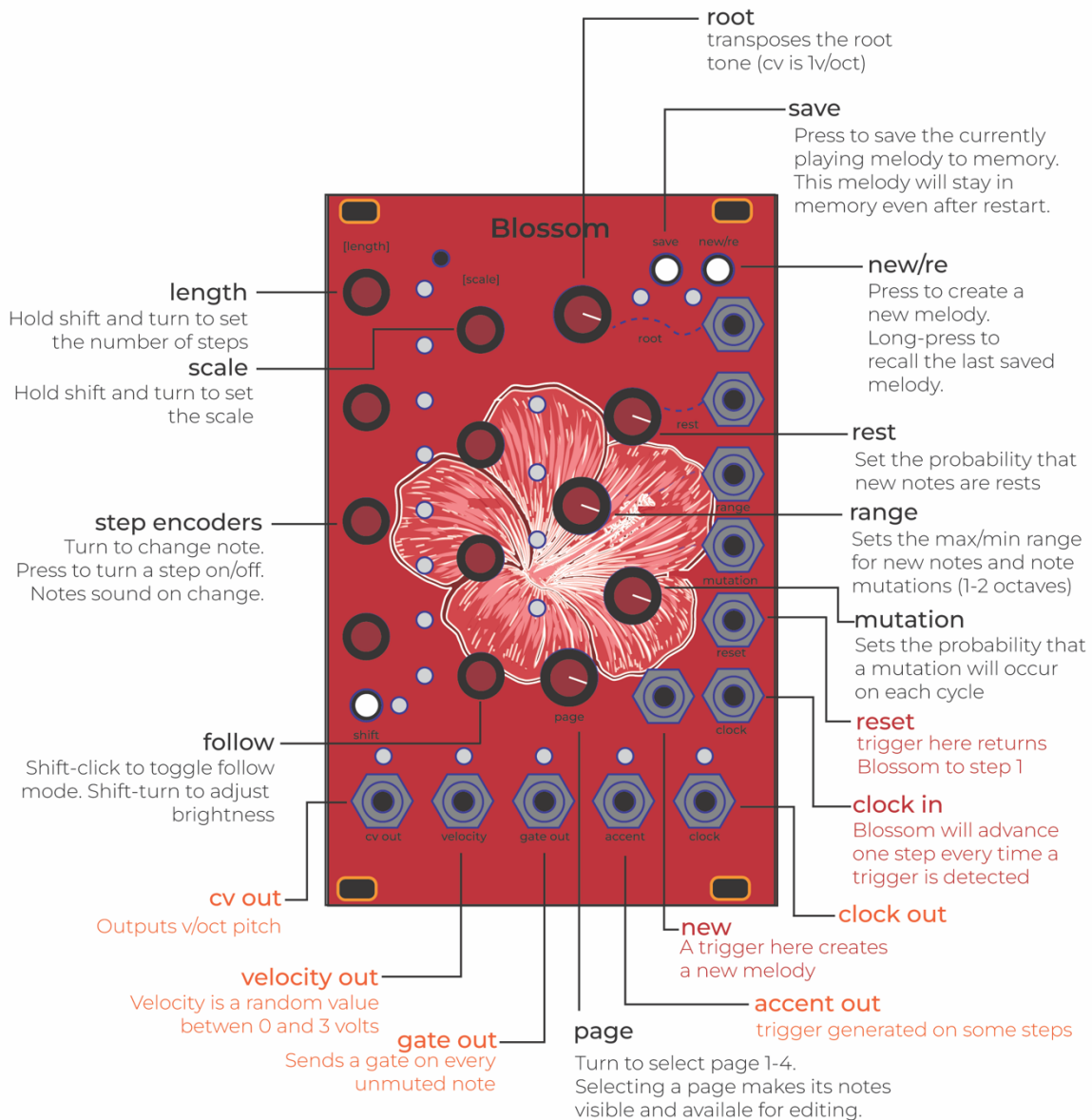


# Blossom

Alternative firmware for Qu-Bit Bloom



Download here: <https://github.com/abluenautilus/Blossom/releases>

Install with the Daisy Web Programmer: <https://electro-smith.github.io/Programmer/>

Firmware and panel by Blue Nautilus / Seaside Modular



## Installation

NOTE: You can install Blossom on your Bloom module **if you have the Daisy version of the module**. There are two versions of the Bloom. Check [this page](#) to figure out which version you have.

To install Blossom, you will need a micro-USB cable. If you are having trouble getting the module to be recognized by your computer, chances are, it's an issue with your cable. Try a different cable. You need one that supports data as well as power transfer.

1. Download the firmware .bin file:  
<https://github.com/abluenautilus/Blossom/releases>
2. Connect the micro-USB cable to the back of the module, and connect the other end to your computer.
3. Open the Electrosmith Web Programmer page in Google Chrome:  
<https://electro-smith.github.io/Programmer/>
4. Click Connect and select your module. You should see DFU in FS Mode.
5. Click the button to select a file from your computer and select the Blossom .bin file.

That's it!

## Introduction

Blossom is designed to be simple and playable. In contrast to the Bloom's two channels, the Blossom only generates a single melody. However, it also generates a "velocity" output and an "accent" output. More on those later.

There are two ways to create a starting sequence. If you press the "new" button, a sequence will be generated for you, algorithmically. You can also turn the encoders to adjust the notes. By default, you will hear the notes change as you turn the encoder to give you feedback on the sequence you are creating. You can control the range of notes generated using the "range" control.

Each time the sequence repeats, there is a probability that a note will mutate, that is, randomly change. The probability of a mutation is controlled by the mutation knob and cv input.

If you wish to save the current sequence, press the save button. If the sequence mutates, or you change it, or a new one is created, you can return to the saved sequence by long-pressing the “new/re” button.

## Detail

**Length.** You can change the number of steps from 4 to 32 by holding the shift button and rotating the first encoder. Once the sequence is more than 8 steps, you can access the other steps by turning the Page knob. If you wish the display to follow along with the current step, hold shift and click the last encoder to toggle the “follow” option on and off.

**Scale.** All of Blossom’s sequences are quantized. You can change the scale by holding shift and rotating the second encoder. The available scales are, in order:

1. Major
2. Minor
3. Harmonic minor
4. Major Pentatonic
5. Minor Pentatonic
6. Dorian
7. Mixolydian
8. Bhairav
9. Chromatic
10. Tuning

The “tuning” scale only produces the root note of the scale and can be used to easily tune your oscillator.

**Step encoders.** You can change the pitch of each individual step by turning its encoder. The pitch will stay in scale. If you want an off-scale pitch, press in the encoder as you turn it. The color of the associated light will indicate the pitch and you will hear the new pitch as you turn the encoder (turning the encoder initiates a gate out as well as sending out the cv of the new note).

**Rest.** The rest knob and cv input control the probability that new notes will be rests, that is, that they will be silent. When the knob is fully clockwise, there will be no rest notes. This parameter applies both to mutations and to new melody creations.

**Range.** This controls the range within which new notes are constrained. Currently there are only two values: when the knob is to the left of noon, notes are constrained to 1 octave. To the right of noon, they may vary 1 octave above or below the base octave.

**Clock in.** Blossom will advance one step every time a trigger is received. This means that Blossom is not calculating tempo and does not care if your clock is steady or unsteady.

**Reset.** Reset sets the sequencer such that the next trigger will initiate step 1.

**New.** A trigger into this input creates a new melody.

**Root.** The root knob and cv input can transpose the root note of your scale. The voltage in plus the knob position will sum with the voltage out.

## **Settings**

**Follow.** Hold shift and click encoder 8 to toggle the follow setting.

**Brightness.** Hold shift and turn encoder 8 to set the global brightness setting.

**Gate length.** Hold shift and turn encoder 7 to change the gate length.

**Accent probability.** Hold shift and turn encoder 6 to change the accent probability.

## FREQUENTLY ASKED QUESTIONS

### Is Blossom supported by Qu-Bit?

No. Blossom is not supported by Qu-Bit Electronix. Please do not bother them with questions about it, or about your module if you install it.

### Can I install Blossom on my module?

You can install Blossom on your Bloom module **if you have the Daisy version of the module**. There are two versions of the Bloom. Check [this page](#) to figure out which version you have. If you have a screw above the Scale encoder, that's the Daisy version.

### If I want to go back to the default Bloom firmware, can I do that?

Yes. You can download the Bloom firmware from [the Bloom product page](#) and install it using the same method you installed the Blossom firmware.

## Change log

Version 1.0, March 13, 2024.