Patch.Init()

Eurorack Reference Design for the Daisy Patch Submodule

Features:

- Width: 10HP
- Depth: 31mm
- Power Consumption*: +12V=90mA, -12V=5mA, +5V=0mA

Hardware Parameters:

- Stereo I/O
- Control voltage interface
- 4 CV ins
- 1 CV out
- 2 gate ins
- 2 gate outs
- 4 knobs
- 1 button
- 1 LED
- 1 toggle switch
- SD Card Slot for firmware updates, samples, configurable options, and more
- Daisy Patch SM onboard:
  - 96kHz / 24-bit audio hardware
  - 64MB of SDRAM for up to 10 minute long audio buffers
  - ARM Cortex-M7 MCU, running at 480MHz
  - x12 ADC inputs (16-bit bipolar CV or potentiometer)
  - x2 CV outputs (12-bit), x2 gate inputs, x2 gate outputs, x12 GPIO
  - Micro USB port, and additional USB pins for full OTG-support as host and device

Applications:

- DSP Eurorack module design and prototyping

* +12V current consumption is dependent on running firmware.

Description

If you can code it, you can make it.

The patch.Init() is our exploratory modular interface for the Daisy Patch Submodule. Open-source both in hardware and firmware, the patch.Init() is the perfect jumping off point for your next modular DSP project.

From ethereal reverbs, glitchy processors, comprehensive samplers, and complex oscillators, the patch.Init() can be any module you need it to be. Looking to create your own commercial module? Our front panel design is completely open-source (MIT).

Just create your interface, add the Patch Submodule to the back, and you are off to the races with industry leading specs in an accessible, affordable package.

Ordering Information

To order the patch.Init() for volume purchases, tax exempt purchases, and the like, refer to table 1. For all other orders, see the product web page.

Order Code	Description	Target Board	Product Link
ES_Daisy_P_Init	Patch SM Modular Reference Design	Daisy Patch Submodule	link

Development Environment

System Requirements

- Windows® OS, Linux® 64-bit, or macOS®
- microUSB cable, Type-A
- 3.5mm headphones and/or 3.5mm audio jack to speakers

Toolchains & Recommended Development Software

- Daisy Toolchain
- VS Code

For additional reference documentation and both hardware and software examples for the Daisy Seed, head to the Daisy support site.

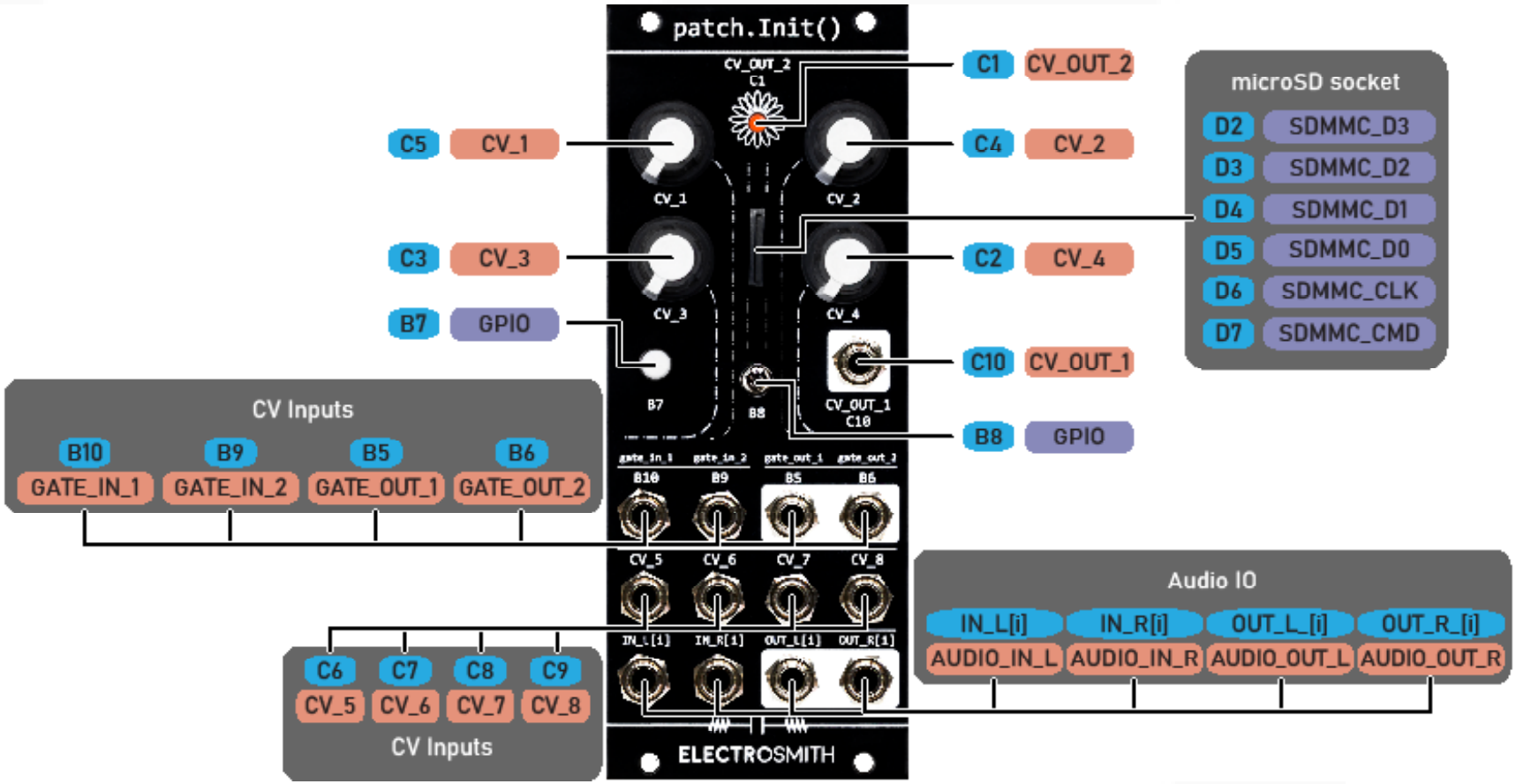
Tutorials

Get started with your Daisy Pod by following our guided programming tutorials.

- C++
- Arduino
- Oopsy

Patch.Init() Pinout

EURORACK SIGNAL | PERIPHERAL GPIO | DAISY PIN NAMES*



* “D” for Digital GPIO or “A” for Analog I/O, depending on use case.

Changelog

RELEASE	DATE	DESCRIPTION
v1.0	MAR/13/2025	• Initial release

Colophon