Daisy Patch

Eurorack Reference Design for the Daisy Seed

Features:

- Eurorack reference design for the Daisy Seed
- Width: 20HP
- Depth: 28mm

Hardware Parameters:

- Quad 24-bit audio IO, up to 96kHz
- Control voltage interface
- 4 CV ins
- 2 CV outs
- 2 gate ins
- 1 gate out
- TRS MIDI input and output
- 4 knobs
- Rotary encoder with push button
- OLED screen for crisp display of visual feedback and data streaming
- SD card slot for firmware updates, samples, configurable options, and more
- Daisy Seed onboard:
  - 96kHz / 24-bit audio hardware
  - 64MB of SDRAM for up to 10 minute long audio buffers
  - ARM Cortex-M7 MCU, running at 480MHz
  - 31 total GPIO pins with configurable functionality
  - 12-bit Digital to Analog Converters (x2)
  - SD card interfaces
  - PWM outputs
  - Serial Protocols for connecting external sensors and devices (SPI, UART, I2s, I2C)
  - Dedicated VIN pin for power
  - Micro USB port, and additional USB pins for full OTG-support as host and device

Applications:

- DSP Eurorack module design and prototyping

Description

Daisy Patch is a metamorphic sound environment capable of becoming an infinite variety of digital instruments. Patch is based on the Daisy embedded DSP platform and features quad 24-bit audio IO. The hardware itself is a blank slate ready to be brought to life with one of the many available firmware files which can be uploaded through our web programming interface. This library of instrument files includes samplers, granular processors, physical modeling voices, and more, and requires no special software to upload other than a web browser.

Custom firmware files can be created using Pure Data, Arduino, Max/MSP ~gen, or C++. Our template files will help you hit the ground running. When it comes to troubleshooting your programs, debugging is a breeze with the onboard OLED display and USB connectivity.

Whether you're looking for a swiss army knife of DSP, or a custom audio platform for hacking, Daisy Patch will help you teach computers how to sing!

Ordering Information

To order the Daisy Patch 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_Patch	Daisy Eurorack Evaluation Module	Daisy Seed	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.

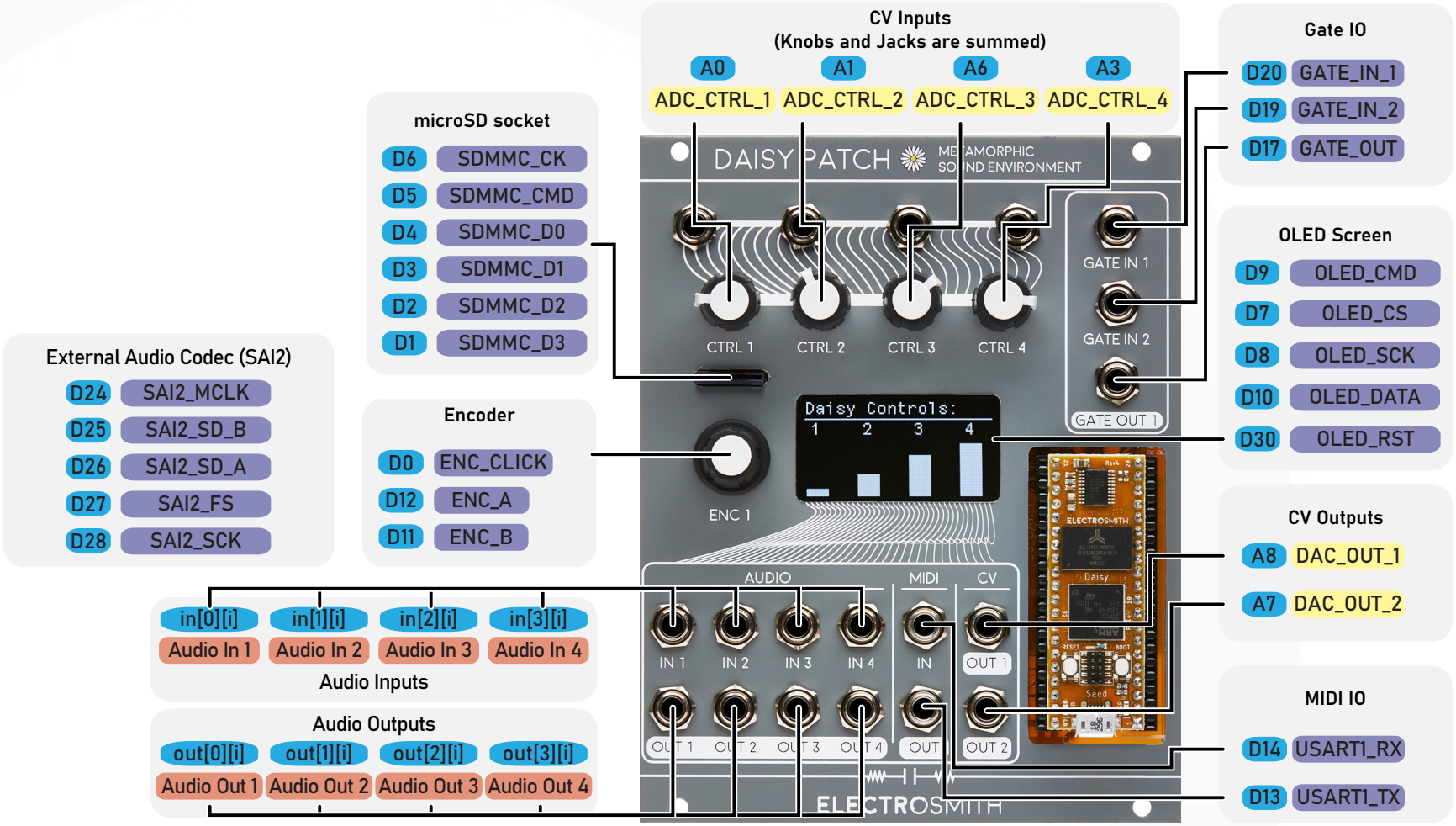
Tutorials

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

- C++
- Arduino
- Oopsy

Patch Pinout

ANALOG GPIO | AUDIO IO | 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