Adafruit seesaw is a near-universal converter framework which allows you to add and extend hardware support to any I2C-capable microcontroller or microcomputer. Instead of getting separate I2C GPIO expanders, ADCs, PWM drivers, etc, seesaw can be configured to give a wide range of capabilities.

For example, our ATSAMD09 breakout with seesaw gives you:

- 3 x 12-bit ADC inputs
- 3 x 8-bit PWM outputs
- 7 x GPIO with selectable pullup or pulldown
- 1 x NeoPixel output (up to 340 pixels)
- 1 x EEPROM with 64 byte of NVM memory (handy for storing small access tokens or MAC addresses)
1 x Interrupt output that can be triggered by any of the accessories
2 x I2C address selection pins
1 x Activity LED

But you can reprogram and reconfigure the chip to have more or less of each peripheral - as long as it fits into the ATSAMD09D14’s firmware! For example, there's also a UART converter but it isn't included in the default firmware.

The ATSAMD09 breakout is great for development of seesaw capabilities (we use it in-house for our design work) or you can use it as-is to give your Raspberry Pi or ESP8266 more hardware support! Each breakout comes with the assembled and tested board, as well as some header strips.

Please note: The boards do not come with a bootloader. If you want to do development on seesaw (e.g. changing the configuration) you'll need to pick up a J-Link and we recommend a SWD adapter breakout. At this time our project is for Atmel Studio but you could probably get it working with arm gcc and a Makefile. We don't provide any support for custom builds of seesaw - we think this is cool and useful for the Maker community!

For more details including the documentation on how to use seesaw, libraries for Arduino/CircuitPython/Raspberry Pi Python, schematics, and more check out the Adafruit seesaw guide

TECHNICAL DETAILS

- Uses I2C address 0x49 - can be changed to 0x4A, 0x4B or 0x4C

Product Dimensions: 32.0mm x 12.0mm x 3.5mm / 1.3" x 0.5" x 0.1"

Product Weight: 1.6g / 0.1oz

MAY WE ALSO SUGGEST...

Adafruit FT232H Breakout
ADS1015 12-Bit ADC - 4
MCP23008 - i2c 8
Adafruit Joy FeatherWing
Adafruit 16-Channel 12-bit PWM/Servo Driver - I2C
ADS1115 16-Bit ADC - 4
"Tomorrow belongs to those who can hear it coming" - David Bowie