
Adafruit LSM9DS0 Library Documentation

Release 1.0

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CircuitPython module for the LSM9DS0 accelerometer, magnetometer, gyroscope.

CHAPTER 1

Dependencies

This driver depends on:

- [Adafruit CircuitPython](#)
- [Bus Device](#)

Please ensure all dependencies are available on the CircuitPython filesystem. This is easily achieved by downloading the [Adafruit library and driver bundle](#).

CHAPTER 2

Usage Example

See `examples/simpletest.py` for a demo of the usage.

CHAPTER 3

Contributing

Contributions are welcome! Please read our [Code of Conduct](#) before contributing to help this project stay welcoming.

4.1 adafruit_lsm9ds0

CircuitPython module for the LSM9DS0 accelerometer, magnetometer, gyroscope. Based on the driver from:

https://github.com/adafruit/Adafruit_LSM9DS0

See examples/simpletest.py for a demo of the usage.

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class adafruit_lsm9ds0.LSM9DS0

Driver for the LSM9DS0 accelerometer, magnetometer, gyroscope.

accel_range

Get and set the accelerometer range. Must be a value of: - ACCELRange_2G - ACCELRange_4G - ACCELRange_6G - ACCELRange_8G - ACCELRange_16G

accelerometer

Get the accelerometer X, Y, Z axis values as a 3-tuple of m/s² values.

gyro_scale

Get and set the gyroscope scale. Must be a value of: - GYROScale_245DPS - GYROScale_500DPS - GYROScale_2000DPS

gyroscope

Get the gyroscope X, Y, Z axis values as a 3-tuple of degrees/second values.

mag_gain

Get and set the magnetometer gain. Must be a value of: - MAGGain_2GAUSS - MAGGain_4GAUSS - MAGGain_8GAUSS - MAGGain_12GAUSS

magnetometer

Get the magnetometer X, Y, Z axis values as a 3-tuple of gauss values.

read_accel_raw()

Read the raw accelerometer sensor values and return it as a 3-tuple of X, Y, Z axis values that are 16-bit

unsigned values. If you want the acceleration in nice units you probably want to use the accelerometer property!

read_gyro_raw()

Read the raw gyroscope sensor values and return it as a 3-tuple of X, Y, Z axis values that are 16-bit unsigned values. If you want the gyroscope in nice units you probably want to use the gyroscope property!

read_mag_raw()

Read the raw magnetometer sensor values and return it as a 3-tuple of X, Y, Z axis values that are 16-bit unsigned values. If you want the magnetometer in nice units you probably want to use the magnetometer property!

read_temp_raw()

Read the raw temperature sensor value and return it as a 16-bit unsigned value. If you want the temperature in nice units you probably want to use the temperature property!

temperature

Get the temperature of the sensor in degrees Celsius.

class adafruit_lsm9ds0.**LSM9DS0_I2C**(*i2c*)

Driver for the LSM9DS0 connected over I2C.

class adafruit_lsm9ds0.**LSM9DS0_SPI**(*spi, xmcs, gcs*)

Driver for the LSM9DS0 connected over SPI.

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