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Unified sensor driver for the Adafruit 10DOF Breakout

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microbuilder	Fixed error in magnetometer vector rotation	Latest commit dba6bbf on 6 Feb 2016
ahrs	Added missing gyro header	2 years ago
pitchrollheading	Added missing header	2 years ago
tester	Added unified driver for L3GD20	3 years ago
.gitignore	Add updated cuberotate ahrs sketch.	3 years ago
Adafruit_10DOF.cpp	Fixed error in magnetometer vector rotation	a year ago
Adafruit_10DOF.h	Added fusionGetOrientation	3 years ago
README.md	Better readme	3 years ago

README.md

Adafruit 10DOF Library

This driver is for the Adafruit 10DOF Breakout (<http://www.adafruit.com/products/1604>), and makes use of Adafruit's Unified Sensor Library (https://github.com/adafruit/Adafruit_Sensor) to provide standard SI units of measure and easy to reuse sensor data.

For information about this breakout and how to use this library, consult our online learning guide at <http://learn.adafruit.com/adafruit-10-dof-imu-breakout-lsm303-l3gd20-bmp180/introduction>

About the 10DOF Breakout

Adafruit's 10DOF Breakout includes everything you need for accurate, meaningful motion capture and detection, including the following sensors:

- L3GD20 3-axis gyroscope: ±250, ±500, or ±2000 degree-per-second scale
- LSM303 3-axis compass: ±1.3 to ±8.1 gauss magnetic field scale
- LSM303 3-axis accelerometer: ±2g/±4g/±8g/±16g selectable scale
- BMP180 barometric pressure/temperature: -40 to 85 °C, 300 - 1100hPa range, 0.17m resolution

About this Library

The Adafruit_10DOF library makes use of Adafruit's existing libraries for the L3GD20, LSM303DLHC and BMP180, but also adds a few helper functions to generate values that are more useful for drones, motion detection, etc.

Adafruit invests time and resources providing this open source code. Please support Adafruit and open-source hardware by purchasing products from Adafruit!

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