File downloads

MinIMU-9 schematic diagram (36k pdf)

L3G4200D datasheet (1MB pdf)

Datasheet for the ST L3G4200D ultra-stable three-axis digital-output gyroscope.

LSM303DLM datasheet (519k pdf)

Datasheet for the ST LSM303DLM 3-axis accelerometer and 3-axis magnetometer.

UM10204 I²C-bus specification and user manual (371k pdf)

The official specification for the I²C-bus, which is maintained by NXP.

# Recommended links

L3G4200D and L3GD20 Arduino library

This is a library for the Arduino that interfaces with our L3G4200D andL3GD20 3-axis gyro carriers as well as the gyros on the MinIMU-9, MinIMU-9 v2, and AltIMU-10. It makes it simple to configure the device and read the raw gyro data.

LSM303 Arduino library

This is a library for the Arduino that interfaces with our LSM303DLM andLSM303DLHC 3D compass and accelerometer carriers as well as the compass and accelerometer ICs on the MinIMU-9, MinIMU-9 v2, and AltIMU-10 (it also works with the LSM303DLH on older versions of those boards). It makes it simple to configure the device and read the raw accelerometer and magnetometer data, and it has a function for computing the tilt-compensated heading for those looking to use the LSM303 as a tilt-compensated compass.

MinIMU-9 + Arduino AHRS

This Arduino program (sketch) allows an Arduino connected to a MinIMU-9,MinIMU-9 v2, or AltIMU-10 to function as an attitude and heading reference system, calculating estimated roll, pitch, and yaw angles from sensor readings that can be visualized with a 3D test program on a PC. It is based on the work of Jordi Munoz, William Premerlani, Jose Julio, and Doug Weibel.
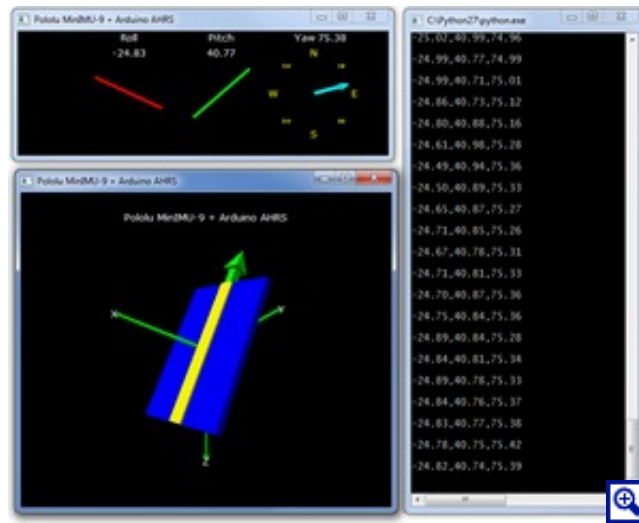
Visualization of AHRS orientation calculated from MinIMU-9 readings.

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