
NODE+

NODE+ iOS and Android

Wireless Sensor Platform



Meet NODE+, a handheld sensor powerhouse that connects to your mobile device to measure color, temperature, motion and more

Portable Wireless Sensor

NODE+ is a handheld sensor powerhouse that connects to your mobile device via Bluetooth 4.0 Smart (Low Energy) and Bluetooth 2.1 Classic.

The NODE+ Sensor Platform also includes a 9 degrees-of-freedom motion engine (gyroscope, accelerometer, magnetometer), and two expansion ports on either end where you can attach any NODE+ sensor module to enhance your NODE+'s functionality.

NODE+motion

NODE+motion measures nine degrees of motion with a 9DOF IMU, which allows NODE+ to accurately measure its orientation and movement.

Data in the palm of your hand

NODE is a handheld, modular, sensor platform that is transforming how apps gather, process and use sensory data from the world around us.

Portable and Wireless

Track temperature, humidity, light, acceleration, and more in passive recording or active monitoring mode.

Bluetooth Smart (4.0/LE) sensors have a long battery life and are reusable.

Each device also has an internal memory port allowing for data to be stored and then uploaded to any computer.

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Experiments underway around the world

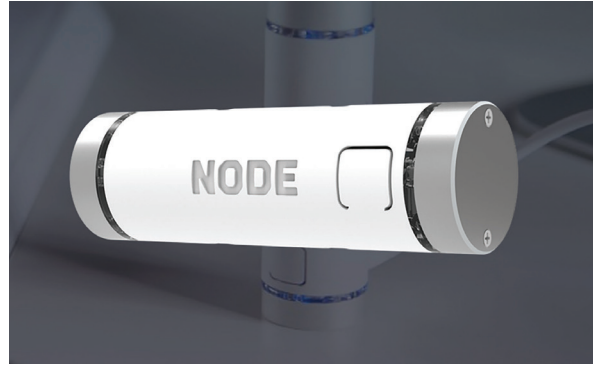
Mobile app developers, systems integrators, and entrepreneurs purchase NODE+motion to test the ways they analyze speed, acceleration, movement, direction, shock, tilt, magnetic fields, and more.

Various trials and experiments are underway around the world in segments that include:

- Motion Therapy
- Core strength and balance training
- Golf
- Video Gaming
- Sleep Research
- Bicycling
- Manufacturing
- Construction

At Variable, we have worked closely with entrepreneurs to help them get the most out of NODE+motion when developing their mobile application. Examples of areas where successful apps were launched include:

- Kettlebell Lifting
- Monitoring tilt and shock for transport and logistics



Dimensions (LxDia.) 1"(25.4mm) diameter, 3.26"(82.7mm) length

Specifications*

Communication

Bluetooth 4.0 Smart and Bluetooth 2.1 Classic
Transmit distance: iOS only: 100m; iOS and Android: 150m
Onboard storage: 16MBytes
USB data communications, 256-bit encryption engine

Magnetometer

Range: $\pm 1200\mu\text{T}$
Sensitivity: $0.3\mu\text{T}$

Accelerometer

Range: $\pm 2g$, $\pm 4g$, $\pm 8g$, $\pm 16g$
Sensitivity: $61\mu\text{g}$, $122\mu\text{g}$, $244\mu\text{g}$, $488\mu\text{g}$, Output rate: 1000Hz (max) – Actual rate may be lower due to Bluetooth connection

Compatible Apple iOS® Devices:

iPhone 4S, iPad Mini, iPhone 5, 5S, 5C, iPod Touch (5th Gen.) or Newer, iPod Touch (5th Gen.) or Newer

Power

Battery Life: 54 days standby time
Current Consumption (Active): $\sim 20\text{mA}$
Current Consumption (Sleep): $\sim 0.5\text{mA}$
Rechargeable Li-Polymer Battery
Micro-USB Charging, Sensor Capabilities: 9-degrees-of-motion fused orientation engine
Output Formats: Quaternion, Yaw/Pitch/Roll, YPR (coming soon)

Gyroscope

Range: 250 degrees-per-second, 500 degrees-per-second, 1000 degrees-per-second, 2000 degrees-per-second, Sensitivity: 0.00763 degrees-per-second, 0.015 degrees-per-second, 0.03 degrees-per-second, 0.06 degrees-per-second
Output rate: 8000 Hz (max) – Actual rate may be lower due to Bluetooth connection

Compatible Android Devices:

Nexus 4 and 5, Samsung Galaxy Note II, III, Tab, Nexus 7, Samsung Galaxy S3, S4, HTC One

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