

# Adafruit 9-DOF Orientation IMU Fusion Breakout - BNO085

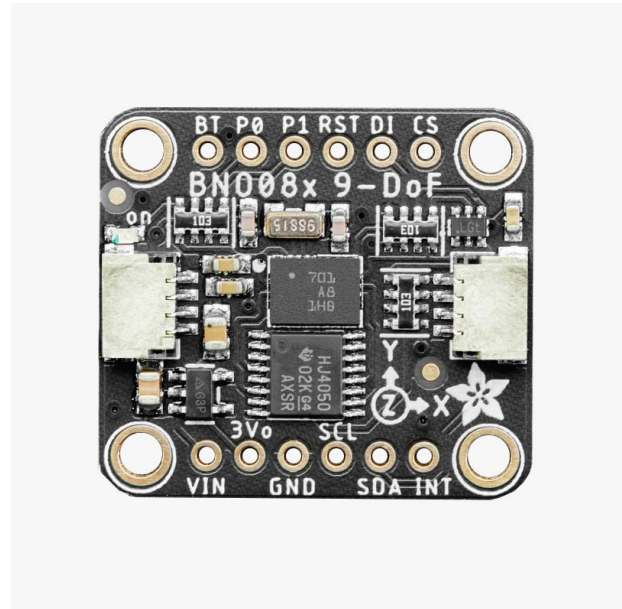
Includes:

- 1 Adafruit 9-DOF Orientation IMU Fusion Breakout - BNO085 manufactured by ArduSimple.
- 2 header rows with 5pin

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More info about the product!



Adafruit 9-DOF Orientation IMU Fusion Breakout - BNO085 SKU is: AS-OPENHW-BNO085-00

Get a discounted bulk price on this product for orders of 50 units or more. Contact us at [info@ardusimple.com](mailto:info@ardusimple.com) to get a quote.

## Description

All images are originals from Adafruit.

ArduSimple manufactures the Adafruit 9-DOF Orientation IMU Fusion Breakout - BNO085 following the Open Source Hardware (OSHW) guidelines.

ArduSimple has not any relation with Adafruit. In case of any issues, warranty is provided by ArduSimple.

Check out [Adafruit's](#) page to learn more.

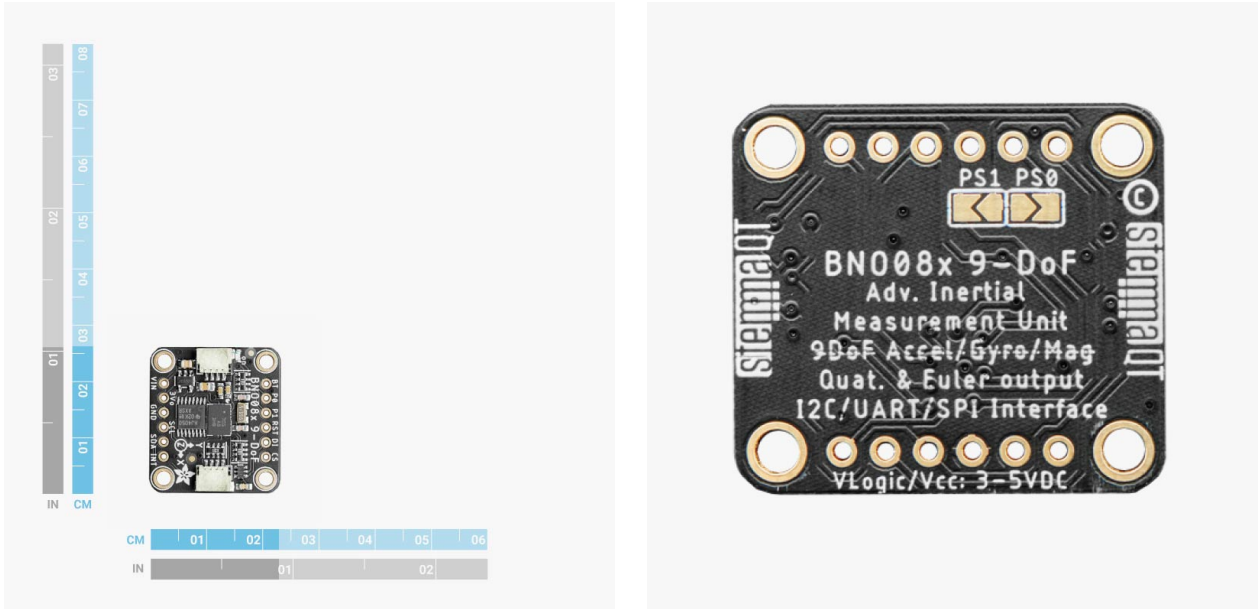
Good to know:

- This product is manufactured and sold by ArduSimple, designed by Adafruit.
- This product is the same as part number Adafruit 4754.
- You are allowed to sell your version of this board (as is or with modifications)

## Specifications

- **1 kHz Sample Rate** – Enables flawless, smooth head- tracking with low latency and support for time-warping for immersive experiences
- **Predictive Head Tracking and AR/VR Stabilization** – Adjust angular position gradually over time to avoid “jumps” and compensate for system latency
- **Enhanced Controller Tracking** – Utilizes camera data to significantly improve VR controller performance Tare – Allows for arbitrary mounting of any BNO08X SiP in the end product
- **Context and Activity Tracking** – Step-based activity features for head-mounted devices, including stationary, running, walking and step count
- **Accurate Heading Angle** – Less than 0.16°/min (10°/hr) typical error rate when using Interactive Calibration
- **Tilt Independent Heading** – Allows for proper heading output when surface is uneven
- **Bump Detection** – Calibrated accelerometer output provides data to support a bump detection algorithm without having to use a separate sensor
- **Inclination Detection** – Provides full 3DOF robot orientation, allowing detection of surface and device issues

## Image Gallery



Adafruit 9-DOF Orientation IMU Fusion Breakout - BNO085 includes free basic technical support. Contact [info@ardusimple.com](mailto:info@ardusimple.com) for more information. Data and descriptions in this document are subject to change without notice. Product photos and pictures are for illustration purposes only and may differ from the real product appearance.