

## 9DOF 3 Click



PID: MIKROE-4153

9DOF 3 Click introduces the BMX055, a small-scale absolute orientation sensor in the class of low-noise 9-axis measurement units, from Bosch Sensortec. It comprises the full functionality of a triaxial, low-g acceleration sensor, a triaxial angular rate sensor and a triaxial geomagnetic sensor. All three sensor components of the BMX055 can be operated and addressed independently from each other. On top, the BMX055 integrates a multitude of features that facilitate its use especially in the area of motion detection applications, such as device orientation measurement, gaming, HMI or menu browser control. 9DOF 3 Click offers both SPI and I2C digital interfaces for easy and fast system integration. 9DOF 3 Click board™ is supported by a mikroSDK compliant library, which includes functions that simplify software development. This Click board™ comes as a fully tested product, ready to be used on a system equipped with the mikroBUS™ socket.

Mikroe produces entire development toolchains for all major microcontroller architectures.

Committed to excellency, we are dedicated to helping engineers bring the project development up to speed and achieve outstanding results.



ISO 27001: 2013 certification of informational security management system.  
 ISO 14001: 2015 certification of environmental management system.  
 OHSAS 18001: 2008 certification of occupational health and safety management system.



ISO 9001: 2015 certification of quality management system (QMS).

## Specifications

Type	Motion
Applications	Can be used for HMI and augmented reality, advanced gesture recognition, indoor navigation, tilt measurement and compensation, free-fall detection and drop detection for warranty logging, display profile switching, advanced system power management for mobile applications and menu scrolling, tap / double-tap sensing.
On-board modules	9DOF 3 Click uses the BMX055 IC, an integrated 9-axis sensor for the detection of movements and rotations and magnetic heading, from Bosch Sensortec.
Key Features	Three sensors in one device, Smart operation and integration, Consumer electronics suite, Programmable functionality, Ultra-low power IC
Interface	I2C,SPI
Compatibility	mikroBUS
Click board size	M (42.9 x 25.4 mm)
Input Voltage	3.3V

## Resources

[mikroBUS™ Standard specification](#)

[LibStock: mikroSDK](#)

[Click board catalog](#)

[Click boards™ Standard Page](#)

## Downloads

[BMX055 datasheet](#)

[9DOF 3 click schematic](#)

[9DOF 3 click 2D and 3D files](#)

[9DOF 3 click example on Libstock](#)

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