

## 6DOF IMU 22 Click



PID: MIKROE-6024

**6DOF IMU 22 Click** is a compact add-on board for advanced motion tracking. This board features the ICM-42670-P, a high-performance 6-axis MEMS MotionTracking IMU from [TDK InvenSense](#). The ICM-42670-P integrates a 3-axis gyroscope and accelerometer, offering exceptional precision in motion detection. It supports both I2C and SPI interfaces for communication, features a substantial 2.25Kbytes FIFO, and includes two programmable interrupts that enhance power efficiency through a wake-on-motion feature. The IMU's gyro and accel are adjustable across a range of full-scale settings, accommodating a variety of usage scenarios. With its low noise levels, high stability under various conditions, and an on-board APEX Motion Processing engine for gesture and step recognition, this Click board™ is an ideal choice for developing wearable technology, smart home devices, robotics, and AR/VR applications.

6DOF IMU 22 Click is fully compatible with the mikroBUS™ socket and can be used on any host system supporting the [mikroBUS™](#) standard. It comes with the [mikroSDK](#) open-source libraries, offering unparalleled flexibility for evaluation and customization. What sets this [Click board™](#) apart is the groundbreaking [ClickID](#) feature, enabling your host system to seamlessly and automatically detect and identify this add-on board.

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	Ideal for developing wearable technology, smart home devices, robotics, and AR/VR applications
On-board modules	ICM-42670-P - state-of-the-art 6-axis MEMS MotionTracking IMU from TDK InvenSense
Key Features	Ultra-low power with wake-on-motion support, lowest noise levels in class, high stability against temperature, shock, and offset, on-chip APEX Motion Processing engine for gesture and pedometer, programmable full-scale range, programmable digital filters, and more
Interface	I2C,SPI
ClickID	Yes
Compatibility	mikroBUS™
Click board size	S (28.6 x 25.4 mm)
Input Voltage	3.3V

## Resources

[mikroBUS™](#)

[mikroSDK](#)

[Click board™ Catalog](#)

[Click boards™](#)

## Downloads

[6DOF IMU 22 click example on Libstock](#)

[6DOF IMU 22 click 2D and 3D files](#)

[6DOF IMU 22 click schematic](#)

[ICM-42670-P datasheet](#)

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).