

Gesture Recognition Development Kit

January 2026

Neuranics' Gesture Recognition Development Kit is a wrist-worn, multi-channel magnetic sensing platform for R&D teams working on gesture recognition and human-machine interaction. It is designed to accelerate the development of next-generation wearable interfaces.

The kit is an advanced R&D platform built around Neuranics' pico-Tesla-level Tunnelling Magnetoresistance (TMR) technology. The kit enables the exploration of increasingly subtle magnetic signals arising from forearm muscle activity.

Unlike conventional electrical methods, magnetic sensing enables high-resolution, contactless muscle measurement in a compact, comfortable wearable form factor, well suited to continuous use and real-world interaction scenarios.

Available under NDA, the kit provides an integrated hardware, software, and documentation stack designed to support systematic evaluation and rapid prototyping of future wearable interfaces and spatial computing platforms.

How it Works

The kit integrates eight independent sensing channels, positioned to detect subtle magnetic fields associated with gestures. Signals are streamed in real time to a laptop via wired or Bluetooth connection, where they can be visualised and recorded.

Neuranics' full software stack enables multi-channel signal inspection, feature extraction, and data export, allowing teams to develop, analyse, and refine gesture-based interactions with minimal setup overhead.

Gesture Capability

The development kit is designed to support a range of forearm-based gestures suitable for wearable control and intuitive human-machine interfaces. Gestures included in this development kit are as follows:

- Pinch motion (thumb and index finger coverage)
- Swipe left (thumb)
- Swipe right (thumb)
- Rest

Gesture sets can be extended or adapted depending on application requirements and software workflows.



Real-Time Insights

The accompanying software suite provides:

- Real-time visualisation of all eight TMR channels
- Raw signal and extracted feature views
- Data recording and export for offline analysis

This enables rapid iteration from signal capture to gesture definition in wearable and interactive system research.

What's Included

Hardware

- Wrist-wearable device with 8-channel TMR magnetic sensing
- Integrated electronics and rechargeable battery
- USB charging and data cables

Software & Data

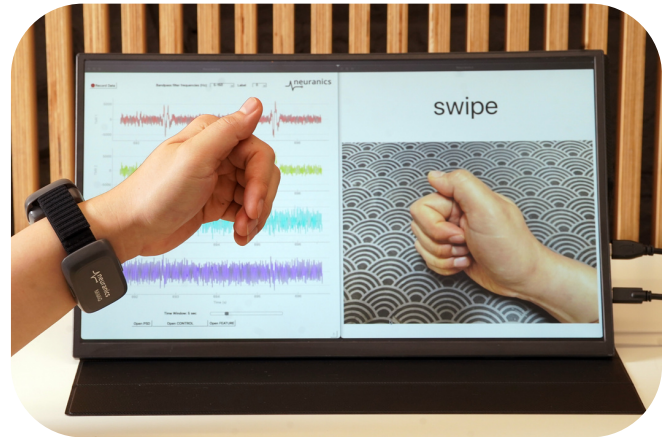
- PC software for real-time visualisation, recording, and feature extraction
- Example data and configuration files

Documentation

- Instructions for Use (IFU)
- Sensor datasheets for specific TMR sensor version integrated in the wristband

Media & Support

- Video demonstrations covering:
 - Kit setup and operation
 - Software workflow
 - Gesture acquisition and usage
- Expert technical support: up to 20 hours of assistance from Neuramics engineering



For more information, please contact info@neuramics.com

Note: The Gesture Recognition Development Kit is provided under strict NDA by Neuramics Ltd. Publication or sharing of results is prohibited without prior written approval from Neuramics.