



Services and expertise

Service

- Scientific consulting
- Technical support
- Administrative support

Hardware

- Dual-core Cortex-M4 processor
- USB and wireless charging
- Wireless data-transfer with Bluetooth 5
- Analog and digital interfaces
- Customizable 3D-printed case

Software

- Data sovereignty for the user
- No remote access due to local data storage
- Transparency of data flow
- Wireless connection to user interfaces
- Android app: easy data gathering and visualization
- Python desktop app: advanced data analytics



Contact

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Fraunhofer Institute for Reliability
and Microintegration IZM



Wireless, autonomous, miniaturized sensor-actuator platform for industrial applications

SWARMY



Measure easily where you want!

Our sensor-actuator platform Swarmy is the right choice for logistics, industry and production and supports you in monitoring and analyzing processes and machines. With a size of 36 mm x 26 mm and a magnetic housing, the module can be mounted even in hard-to-reach places.

With Swarmy, you can connect several modules to form a sensor swarm. This decentralized and networked architecture brings not only robustness and flexibility but also scalability to the overall system and opens up new possibilities for monitoring and automating processes and systems.

The modules can be attached easily and quickly. The miniaturized IoT platform helps you from the first development step of data acquisition at the desired measuring point to the display and analysis of the data, thus reducing your development times and keeping track of processes and systems.

Take automation to a new level and close the data gap between idea and established process.

Measure flexible what you want!

Swarmy integrates a variety of sensor and actuator options that can be configured into a module variant. In addition, module expansion for further sensors and actuators is possible. Swarmy gives you initial access to:

- Indoor localization
- Measurement of light intensity for detection of thresholds in ambient light or for presence detection
- Measurement of any movement or orientation in the room
- Measurement of indoor air quality and air pressure
- Distance between objects
- Detection of gestures and objects by Lidar
- Barometric height measurement
- Measurement of humidity and ambient temperature
- Acoustic measurements by microphone arrays
- Two stepper motors or four DC motors
- Optical alarm
- Acoustic communication

Measure straightforward and fast!

From the first concrete automation idea to the real implementation - necessary, qualitative data are the basis for the evaluation of an approach. Swarmy supports you in this process.

Immediately operational, energy-efficient, and independent of your already existing infrastructure. This allows you to directly and immediately evaluate set-up times, manufacturing tolerances and process variations in forming, machining, joining, and coating processes.

Start your way into digital transformation with us. Talk to us and experience the Internet of Things, tailored precisely to your needs and challenges.

From installation at the measuring point to the first data in just a few minutes.

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