



Monitoring & Services

Infrastructure | Buildings | Industrial structures

ROBO[®]QUAKE – earthquake monitoring, alarm and protection system



Exact **mageba**
your exact solution



Quick overview

About

ROBO®QUAKE is a plug-and-play, IoT-based, and self-sufficient structural health monitoring system (SHMS) developed by mageba. Engineered to deliver precise in-sights into a structure's behavior before, during, and after earthquakes, it empowers you with critical instructions and information exactly when you need it.

By enabling real-time decision-making and automated safety responses, ROBO®QUAKE not only protects infrastructure but also safeguards lives. Its modular design, easy deployment, and seamless integration into existing systems make it an ideal solution for both new builds and retrofits.

Whether you're responsible for high-rise buildings, bridges, or industrial facilities, ROBO®QUAKE transforms seismic risk into manageable data—ensuring operational continuity and peace of mind.



**REAL-TIME
INSIGHTS**



**MODULAR
APPLICATION**



**POST-EARTHQUAKE
STRUCTURAL
ASSESSMENT**



**SHUTTING OFF
GAS VALVES &
WATER SUPPLY
LINES**



**REMOTE
MONITORING**



**ACTIVATION
OF EVACUATION
ALARMS**



**SIGNALLING TO
EMERGENCY
RESPONDERS**



**QUICK SETUP
& EASY ACCESS**

Product features



The brain behind ROBO®QUAKE

At the heart of the ROBO®QUAKE system is its powerful central unit — a compact solution combining cutting-edge hardware, intelligent software, and specialized algorithms. This unit handles the collection, analysis, storage, and transmission of critical data, delivering real-time insights when they matter most. It's the smart core that ensures seamless system performance and precise structural analysis, making ROBO®QUAKE a truly intelligent monitoring solution.



High-precision

ROBO®QUAKE's built-in accelerographs are ultra-sensitive sensors engineered to detect and record ground motion caused by seismic activity. By capturing even the slightest acceleration anomalies, they deliver crucial data for evaluating structural performance during an earthquake, helping you quickly assess impact and make informed decisions.

accelerographs



Customizable add-ons for enhanced performance

ROBO®QUAKE is built for flexibility — with a wide range of optional add-ons to expand its capabilities and tailor the system to your structure's unique requirements.

- Connecting to fire suppression systems
- Shutting off gas valves and water supply lines
- Connect up to 30 specialized sensors for targeted data collection from multiple buildings

Product types and references

Product types

Different buildings have unique seismic monitoring needs, which is why ROBO®QUAKE offers specialized systems tailored to meet the specific requirements of various structures. Whether it's a small, standalone building or a complex high rise, each type of structure demands a unique approach to ensure optimal safety and performance.

ROBO®QUAKE Low-Rise is a system tailored for smaller buildings, providing effective monitoring and real-time safety enhancements.

For complex and high-rise buildings, ROBO®QUAKE High-Rise ensures comprehensive coverage and proactive response capabilities.

Both systems leverage high-sensitivity sensors and IoT connectivity to deliver accurate risk assessments and faster responses, minimizing downtime and inspection costs.



ROBO®QUAKE Low-Rise

The ROBO®QUAKE Low-Rise system offers effective seismic monitoring for smaller structures. Installed at the upper floor, it uses a high-precision 3D accelerograph to capture localized seismic data. It provides real-time insights, enhancing safety with automated alarms and notifications via SMS, email, or app. With high-sensitivity sensors and IoT connectivity, it ensures accurate risk assessment and faster response, minimizing downtime and inspection costs.



ROBO®QUAKE High-Rise

The ROBO®QUAKE High-Rise system ensures comprehensive seismic coverage for complex buildings by deploying three accelerographs at key structural points. Its modular hardware, robust software, and advanced analytics enable real-time monitoring and proactive response. Features like automated evacuation protocols, utility shutoffs, and emergency signaling make it ideal for high-density commercial spaces, enhancing safety and structural integrity.

Project references – ROBO®QUAKE structural health monitoring system



Solaire Resort & Casino | Philippines

The ROBO®QUAKE Earthquake Monitoring System enables the owner to receive up-to-date information about the structure's status in an event of an earthquake.



Gentry Manor | Philippines

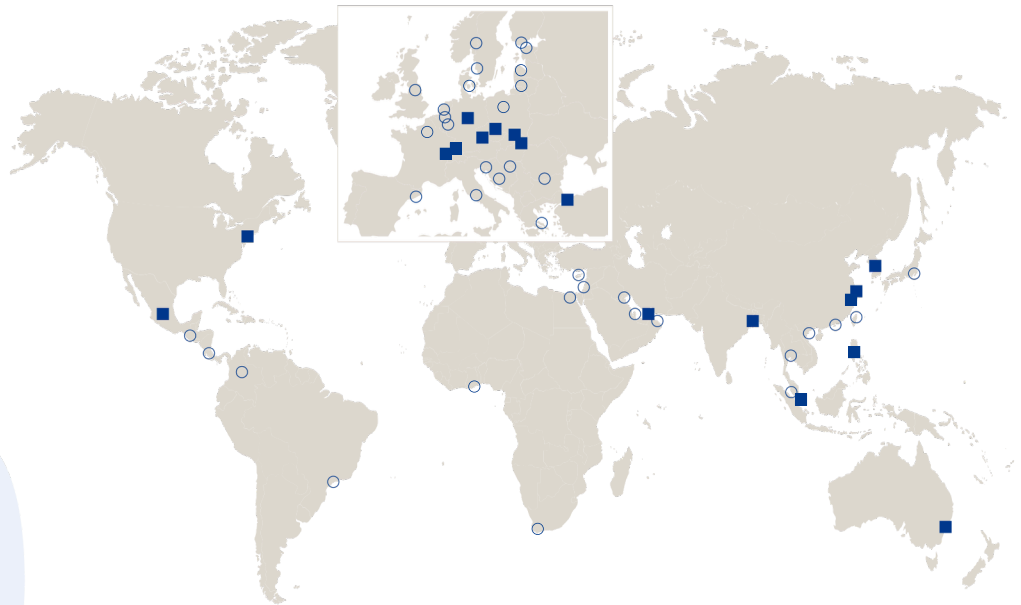
mageba supplied ROBO®QUAKE Earthquake Monitoring System to provide real-time assessments and in-depth insights into a building's structural behavior before, during and after seismic events.



PBCom Tower | Philippines

The ROBO®QUAKE Monitoring System installed by mageba provides continuous data on the state of the building.

engineering connections® – since 1963



■ Locations
○ Representatives

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