

QUAKELOGIC

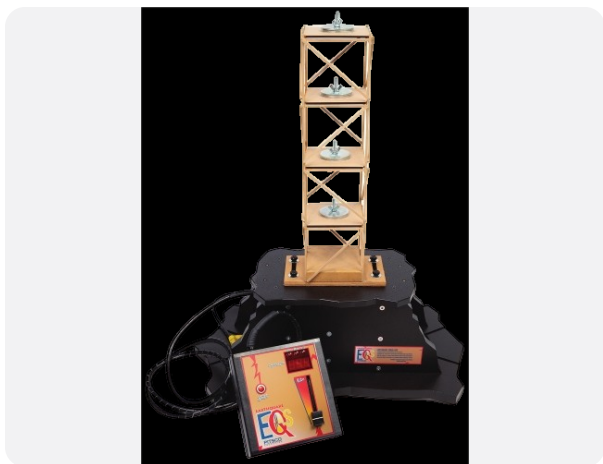
EDUCATIONAL EARTHQUAKE SHAKE TABLE SYSTEM

QuakeMate



QUAKEMATE

EDUCATIONAL EARTHQUAKE SHAKE TABLE



REPEATABLE SEISMIC MOTION FOR THE CLASSROOM

QuakeLogic's QuakeMate is a single-axis, electromechanical earthquake shake table for educational and instructional use. It delivers repeatable seismic motion to demonstrate structural dynamics, resonance, and failure mechanisms — a fully standalone system requiring no computer or external software.

- Demonstrates structural dynamics, resonance, and seismic failure mechanisms with repeatable, adjustable shaking for hands-on learning.
- Creates custom and predefined shake patterns with record and playback for comprehensive structural testing and demonstrations.
- Supports scaled tower models and design-build-test competitions with a 30 kg (66 lb) payload and included plywood loading plates.
- Delivers safe, quiet, portable operation on standard 110–240 VAC power with intuitive standalone controls.

WHAT'S INCLUDED »

- QuakeMate™ Shake Table
- Integrated Control Box
- Washers & Anchor Bolts
- 1/8 in (3.2 mm) Plywood Floor Plates
- User Manual with Setup Instructions & Student Project Ideas

KEY FEATURES

- Single-axis electromechanical shake table purpose-built for classroom and laboratory instruction, delivering repeatable seismic motion with no computer or external software required.
- Adjustable 0–30 Hz frequency range with manual, record, and playback modes for demonstrating resonance, structural dynamics, and failure mechanisms.
- Sinusoidal and user-controlled motion with up to 8 minutes of non-volatile recorded sequence, retained when the system is powered off.
- 30 kg (66 lb) payload capacity supports scaled multi-story tower models and design-build-test competition structures.
- Integrated LED frequency display, start button, rate slider, and mode selector for intuitive, fully standalone operation.
- Included 1/8 in (3.2 mm) plywood floor plates with washers and bolts for adjustable mass loading and varied structural conditions.
- Compact, portable, low-noise, low-risk design engineered for safe hands-on student use across all educational levels.
- Universal 110–240 VAC input at under 500 W runs on standard classroom electrical supply anywhere.

PRODUCT FEATURES

Motion Performance

Maximum Acceleration: 4 g

Maximum Velocity: 800 mm/sec (31.5 in/sec)

Stroke (Displacement): ± 20 mm (± 0.79 in)

Maximum Payload: 30 kg (66 lb)

Operating Modes

Manual Control

Record

Playback

Frequency & Duration

0–30 Hz, User-Adjustable

Up to 8 Minutes per Recorded Sequence

Control & Interface

LED Frequency Display (Hz)

Start Button, Rate Slider, Mode Selector

Non-Volatile Sequence Memory

Standalone — No PC Required

Applications

Earthquake Engineering Education

Structural Dynamics & Resonance

STEM Classroom Experiments

Small-Scale Structural Testing & Model Validation

SYSTEM FEATURES

TYPE	DESCRIPTION
Motion Axis	Single-Axis Horizontal (1 Degree of Freedom)
Motion Control	Manual / Record / Playback Modes
Frequency Range	0–30 Hz, User-Adjustable
Sequence Memory	Non-Volatile, Up to 8 Minutes
Operation	Fully Standalone – No PC Required
Loading System	Plywood Floor Plates with Adjustable Mass
Power	Universal 110–240 VAC Input, < 500 W

OPTIONS & ACCESSORIES

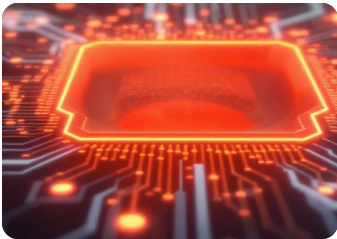
FLOOR PLATE & LOADING SYSTEM

Includes 1/8 in (3.2 mm) plywood floor plates with washers and anchor bolts for adjustable mass loading, enabling students to model varied structural conditions, mass distributions, and resonance behavior on the shake table.

STANDARD ACCESSORIES

The system includes the QuakeMate shake table, integrated control box, washers and anchor bolts, plywood floor plates, and a user manual with setup instructions and student project ideas – everything required for immediate classroom use.

APPLICATIONS



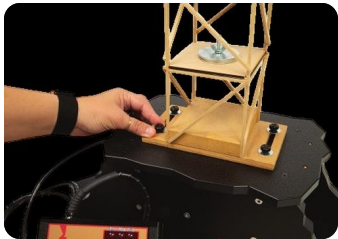
Earthquake Engineering Education



Structural Resonance Demonstrations



STEM & Physics Laboratories



Design-Build-Test Competitions

TECHNICAL SPECIFICATIONS

SPECIFICATION	DESCRIPTION
Product	QuakeMate Educational Earthquake Shake Table
Configuration	Single-Axis Electromechanical Shake Table
Degrees of Freedom	1(Horizontal)
Motion Type	Sinusoidal / User-Controlled Frequency Variation
Frequency Range	0-30 Hz, Adjustable
Maximum Acceleration	4 g
Maximum Velocity	800 mm/sec (31.5 in/sec)
Stroke (Displacement)	±20 mm (±0.79 in)
Maximum Payload	30 kg (66 lb)
Operating Modes	Manual / Record / Playback
Maximum Test Duration	Up to 8 Minutes per Recorded Sequence
Sequence Memory	Non-Volatile (Retained When Powered Off)
Frequency Display	LED Display (Cycles per Second / Hz)
User Interface	Start Button, Rate Slider, Mode Selector
Standalone Operation	Yes – No PC or External Software Required
Mounting Interface	Pre-Drilled Anchor Holes
Load Attachment	Washers and Bolts (Included)
Floor Plate System	1/8 in (3.2 mm) Plywood Plates (Included)
Dimensions (W × D × H)	45 × 30 × 22 cm (17.7 × 11.8 × 8.7 in)
Input Voltage	110-120 VAC or 220-240 VAC
Power Frequency	50 / 60 Hz
Power Consumption	< 500 W (Typical)
Power Interface	Standard Grounded AC Outlet
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Conditions	Dry, Indoor Environment
Duty Cycle	Intermittent Educational Use
Noise Level	Low / Classroom-Friendly
Included Items	Shake Table, Control Box, Floor Plates, Washers & Bolts, User Manual
Warranty	Standard Manufacturer Warranty

**Corporate
Headquarters:**

- **QuakeLogic Inc.**
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**About
QuakeLogic:**

QuakeLogic Inc. is a California-based engineering and technology company providing innovative, reliable, and high-quality seismic and structural testing solutions to customers worldwide.

**Our
Commitment:**

We are committed to quality, innovation, and customer satisfaction, building lasting partnerships by delivering reliable solutions and dependable support.



**SCAN TO VIEW
PRODUCT »**

QuakeMate

