Lego down! Focused vibrations knock over minifigures

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This demonstration was transformed into a two-player game for a museum exhibit in a wave propagation museum hosted by ETH Zurich in Switzerland. Two visitors take turns focusing vibrations and attempting to knock over the Lego minifigures on the other team.

The technique also has numerous applications beyond Lego, and Anderson said it shows the power of focused vibrations.

"Time reversal has been used to focus sound in the body that is intense enough to destroy kidney stones or brain tumors without requiring surgery," Anderson said. "I have used time reversal to locate cracks or defects with ultrasound in metal structures, such as storage canisters for spent nuclear fuel. Time reversal can also be used to locate and characterize earthquakes or locate gun shots within an urban city environment."

More information: acousticalsociety.org/asa-meetings/

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