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FLYING HOUSES AGAINST EARTHQUAKE IN JAPAN

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As we know, earthquakes don't kill people. People's houses in the midst of earthquakes kill them. Look at the statistics and you'll know that the vast majority of fatalities from earthquakes large or small come from buildings, or parts of buildings, falling on their residents. What is better way to avoid tragedy then, when an earthquake suddenly comes?

Japan in the second half of the twentieth century and now in the twenty-first century has rightly been called an ultramodern power. Today, Japan's technology not only makes the country one of the most advanced in the economy, but has also become an integral part of its culture. They help defend against the harsh natural conditions of small islands and contribute to the world's scientific progress.

If you look at the "flying" houses built, of which there are already more than a thousand, you will not see anything special. An ordinary residential house, no different from any other building, but in the event of an earthquake it will not only save the lives of all the occupants, they will not even feel the tremors. To achieve such structural stability, Air Danshin Systems specialists came up with the idea to build houses without a rigid connection to the foundation.

The product of inventor Shoichi Sakamoto, the house sits, during more stable times, on a deflated air bag. When sensors feel a tremor, they switch on a compressor within a second. The compressor pumps air into an airbag, inflating it within a few more seconds, and ultimately lifting the entire house a good three centimeters off its supposedly earthquake-proof concrete foundation. There the structure will hover, its inhabitants able to casually go about their business, for the duration of the quake. Then the airbag deflates and the house gently settles back down.

The company built such a house on a "shake table" and equipped it with a few inhabitants, some furniture, and a couple of glasses of wine. When the mock tremors hit, in front of a rapt, hardhat-outfitted audience, the denizens hardly noticed, and not a drop of wine was spilled. The system will be added to new, otherwise typically built homes of an appropriate weight, and can be retrofitted to existing structures as well.

Air Danshin's shake test dealt only with side-to-side motion and most earthquakes are not limited to a two-dimensional plane. Three centimeters of levitation will only protect a house from earthquakes that don't rise higher than three centimeters. Never mind the question of what would happen to a floating house hit by a tall wave of a quake. It would likely slip right off its foundation. Or, conceivably, a strong tornado might more easily carry the structure off to Oz.

And the most pleasant thing for ordinary Japanese is the fact that building a house that can “take off” at the right time will be somewhat cheaper than strengthening the entire building with seismically resistant materials and structures (traditional technology for the Land of the Rising Sun). In the innovative version, you will only have to spend money on an earthquake-resistant foundation and it will be necessary to plan just such a creation option in advance, because it will definitely not work to “slip” an airbag with sensors and a compressor under the finished object.

Another problem is that the first tremors that would activate the system may very well be the biggest, most destructive tremors of the earthquake. The airbag, were it able to inflate, might be pushing up against the rubble of an already damaged house.

Along with such introductions, special building materials and glass with a special steel thread are used, because they are the most fragile element in the construction of the building.

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VEHICLE THEFT PREVENTION

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Every car owner strives to protect his car from thieves. For this purpose, various security systems are used to prevent car theft or damage. Modern security systems perform not only anti-theft function and serve to monitor the car in passive mode, but also can be active protection mechanisms. For example, they can turn off the car engine in a minute after the theft, as well as turn on/off sound-and-light alarms (emergency lights, parking lights and main light) during the required period of time. Or in winter they can pre-heat the engine by means of the signal received from the remote key fob. There are 4 main classes of security complexes, namely:

- satellite-based monitoring systems that use GPS systems;
- immobilizers, which are usually factory-fitted;