How long does it take you to reach the other half through the center of the Earth vertically?

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According to calculations by scientists, the answer to this interesting physics question is about 42 minutes 12 seconds.

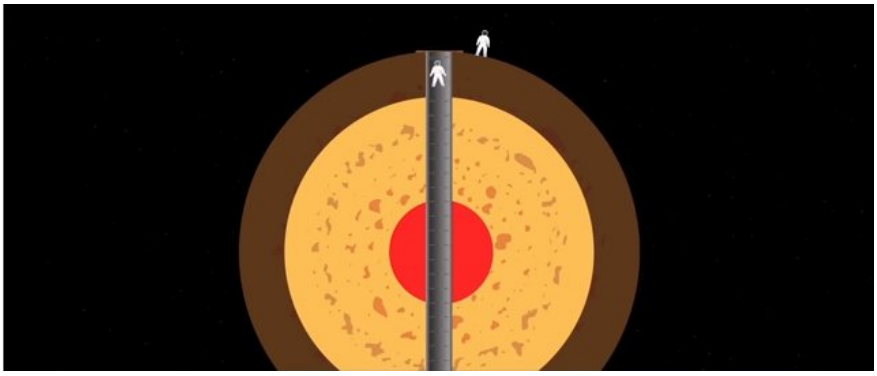
But recently, Alexander Klotz of McGill University in Canada has researched and proven that the actual time is even lower - only about 38 minutes 11 seconds.

According to Alexander Klotz, we have previously considered the constant variability of gravity that ignores the pull force due to the presence of air on the falling person so the answer is 42 minutes. This pulling force gets smaller as it approaches the center of the Earth and grows as people fall in the opposite direction of gravity on the other side.

The previous result is that we accept the speed of recognizing when someone makes the first half of the journey, this speed is big enough to make the person continue to move in the opposite direction of gravity on the other side of the planet and then go straight up. until the ground.

However, Klotz said that the center of our planet is thicker than the shell. Specifically, the density of material at the Earth's surface is about 1 ton per cubic meter and about 13 tons per cubic meter at a position of 6,371 km below the ground, which will affect the speed of people falling.

Based on seismic data, Klotz calculated different density at different depths, thereby obtaining the most accurate answer. If gravity is constant, you will travel at about 40,344 km / h, 32 times the speed of sound, and need about 19 minutes to get to the center of the Earth.



You will slow down when going through the core, but due to inertia, keep going to the other side. When you reach the other end, you will turn your head up and then go back to the ground as usual.

From there we will have the correct answer for 38 minutes and 11 seconds for people to reach the other end of the planet through a 12.742 km long bore through the Earth.

1. Why didn't NASA intend to return to the Moon?
2. Crazy idea: Create an atmosphere for Mars