Galileo's Gravity Cannon is Waiting for Elon Musk to Finally Shoot It

Galileo once had a brilliant idea for a very simple yet impossible experiment that would identify the true mechanical nature of gravity once and for all. I call the apparatus I designed for this experiment a Gravity Cannon. The Gravity Cannon contains only two moving parts but once in outer space, just one shot will provide accurate proof of just exactly how the mechanics of Gravity actually work in less than a half hour.

Galileo's original thought experiment was really quite simple and easy to understand. It just seemed it would be impossible to ever perform. He would drill a hole through Earth's center from say Ecuador to Borneo. Then he would drop a cannonball into one end of the hole and then wait at the other end to see what happens.

There are only two possibilities as to what would happen. If gravity is a Force that can produce Kinetic Energy in a falling body like Newton and Einstein thought it to be, then when the cannonball is dropped into the hole at Quito, Ecuador it would accelerate at a decreasing rate all the way past Earth's center and then Decelerate at an increasing rate all the way up to the surface where it would come flying out of the hole on the coast of Borneo and rise high into the air. It would then drop back into the hole and fall all the way back to Ecuador. The process with then continue and it would go back-and-forth from one side of the hole to the other it. This whole assumed Acceleration/Deceleration process cannot be measured with accelerometers because accelerometers can only measure Deceleration/Acceleration interactions.

Galileo's idea for the other possible outcome for the experiment comes from another of his Gravity experiments that he was actually able to perform. This involved simultaneously dropping a musket ball and a cannonball from the top of the Leaning Tower of Pisa. It had long been the opinion of Aristotle that the heavier cannonball would fall much faster than the lighter musket ball. When Galileo sat on the ground and watched the balls fall and then impact the ground at the same time, it seemed to him that the balls hadn't even moved at all add that the ground rose up and impacted the stationary balls. At the same time he could clearly feel the ground constantly pushing him up. This led him to consider a second possible outcome of his experiment. The cannonball would remain motionless when dropped in the hole and Earth's surface would accelerate upward away from it. We can measure this acceleration with an accelerometer and assume that it is upward. However, the truth about accelerometers is that all measurements are relative and there is no way to determine whether a measurement of momentum exchange is absolute deceleration, acceleration, or a combination of the two.

Galileo had to assume that the upward push of the Earth, that he constantly felt, could be either upward acceleration or downward deceleration. Without measuring photon Doppler Effects, there is no way to determine between absolute deceleration and acceleration.

Galileo also had to assume that the dynamic motion of Gravity had to be pure and absolute Deceleration or Acceleration. If Gravity is an Accelerating Force then it needs a source of energy. The true inertial acceleration of mass requires increasing amounts of kinetic energy to maintain it. Galileo could not identify a source for this energy and realized that Earth's acceleration of ($10 m/s^2$) would reach the speed of light in less than a year.

Galileo then considered the opposite. If Gravity was an eternal Deceleration instead of an Acceleration, then it would not require any Energy to make it work and would in fact, steadily produce a supply of Kinetic Energy.

Galileo determined that if Gravity was the Force of Deceleration, then when he dropped the cannonball into the hole it would stop decelerating and remain motionless. The downward deceleration of Earth's upward momentum would be measured at its surface as upward acceleration.
In Galileo's experiment, the ball would appear to first accelerate down into the hole at a decreasing rate and then slow to a virtual stop as it eventually reaches Earth's center. Galileo never promoted this idea because of political repression at the time. For promoting other similar ideas, he was arrested by the church for blasphemy and placed under house arrest for the rest of his life so he wouldn't spread his unpopular ideas about Gravity.

When Newton came along, he imagined that Gravity had to be a downward Acceleration of Mass caused by an otherwise undetectable "gravitational force". Newton had no real theory of Gravity but he developed a set of mathematical equations equally based on measurements of either gravitational Deceleration or gravitational Acceleration. Newton went along with current scientific dogma and announced that Gravity was pure Acceleration and then used his equations to accurately predict gravitational motion here on Earth as well as predict gravitational and orbital motions in the cosmos at large. Newton's simple uninformed guess that Gravity was an Acceleration and not a Deceleration became the unassailable dogma of Scientific Thought even though it had never been validated by experimental measurements.

When Einstein came along, he realized that gravity couldn't be measured with accelerators and instead developed the idea that the gravitational acceleration of falling bodies was only equivalent to real inertial acceleration and was measured with accelerometers as the kinetic energy of Deceleration when falling bodies impact the ground. Einstein then used this idea to support his equally upside-down Gravitational Potential Energy Theory that can be calculated but not measured.

I do not know if either Newton or Einstein ever considered Galileo's experiment but many physicists since then have mentioned it but always with the idea that Gravity is an Acceleration and that the cannonball would continually pass back and worth through Earth's center from Ecuador to Borneo. No one ever suggested the possibility that the cannonball would decelerate to a stop an Earth's center.

This is the way it stayed until 1959 when Pound and Rebka made their famous experiment where they measured both the Direct and Transverse Doppler effects of photons caused by both linear and gravitational momentum. Their results conclusively demonstrated that Gravity was measured to be an upward force caused by the downward Deceleration of Gravitational Momentum. They used the Mossbaurer Effect to measure that the top of the Jefferson Tower has less Gravitational Momentum than the bottom by the exact amount calculated by the Principle of Gravitational Momentum.

Their actual Pound-Rebka measurements were somewhat complicated but in essence what they measured was that due to differences caused by decelerating gravitational momentum, clocks at the top of the Jefferson Tower ran slightly faster than clocks at the bottom due to their having less absolute gravitational momentum. As a result, photons emitted from the top of the tower were Blue shifted compared to red shifted photons from the greater gravitational momentum at the bottom. These Doppler shifts were measured to an accuracy of fifteen orders of magnitude and clearly show Gravity to be the constant Deceleration of Gravitational Momentum.

Even though babies in their cribs knew Gravity to be a constant deceleration, all the Scientists firmly believe in Einstein's Gravitational Energy Hoax have remained completely convinced that gravity is equivalent to a downward Acceleration and would not even consider their physical measurements of it being a downward deceleration of upward momentum.

Instead, the mainstream dogmatic physicists and Einstein apologists all claim that Pound and Rebka had merely proven Einstein's Equivalence Principle to be correct and that downward gravitational acceleration can be calculated but never measured. They claim that high altitude clocks run faster than ground clocks because they have greater gravitational potential energy. They all feel secure in their beliefs that Galileo's experiment could never be performed and prove them wrong.

Now today, with modern technology and a somewhat different political climate than what Galileo experienced, it has become possible to easily preform his experiment in outer space with a Gravity Cannon.

It is now possible for Elon Musk or some other Astronaut to easily perform Galileo's exquisite Gravity experiment in front of the whole world. In a real time Internet demonstration taking only about twenty minutes, everyone worldwide will be able to see and understand for themselves just how Gravity actually works. No one ever again will need to have a theory of how gravity works. It will just be nothing more than a simple accelerometer measurement of a decreasing Deceleration of Gravitational Momentum that alters the very intrinsic parameters of Mass, Space, and Time.