**[This Is How Asteroid Mining Will Work](http://gizmodo.com/5905090/this-is-how-asteroid-mining-will-work)**

By: Jesus Diaz

Yesterday, a group of billionaires, scientists and engineers announced what could become the most important enterprise in human history since Columbus sailed West:[an asteroid mining company](http://gizmodo.com/5904727/how-the-space-miners-will-bring-trillions-of-dollars-to-earth-live-coverage) called Planetary Resources. They want to jump start a completely new industry between the Earth and the Moon, one that will add trillions of dollars to the world economy and ensure our prosperity for centuries to come.

Is an amazing and lofty goal. One that has the potential to change our world forever. One that is risky and hard, but which they believe can be achieved within a decade. This video offers a glimpse of how space mining will work.

Planetary Resources is backed by people with deep pockets, like Google's Larry Page and Eric Schmidt, film maker James Cameron, Microsoft's former Chief Software Architect Charles Simonyi, and Ross Perot, Jr. among others.

There are 9,000 asteroids near Earth. Of those, about 1,500 are within easy reach using the same or less power than what was used to go to the moon.

These asteroids are loaded with two things. Some of have a high content of water ice, which could be converted into solid oxygen and solid hydrogen to provide rocket fuel for exploration; in its un-altered form, it could help support life in space. Harvesting water from asteroids will make space travel really inexpensive, allowing for an industry to blossom in space.

Other asteroids are rich in rare metals, like platinum or gold. An abundance of these metals will enable easier acces to technology that is currently prohibitively expensive.

One small asteroid of, say, 50 meters in diameter could contain billions of dollars worth of these metals, pure and ready for easy extraction. Likewise, an icy asteroid of the same size could contain enough water to power the entire space shuttle program.

First, within two years, the company will send prospectors to low-earth orbit. Called the Arkyd 100 series, these machines will be cheap and networked together. They will track near earth asteroids (NEA) and asses the possibility to reach them and mine them.

Within a decade, they will launch a swarm of prospectors with propulsion capabilities. They will be the Arkyd 200 and 300 series. These will approach asteroids and analyze their composition.

After identifying the best candidates in terms of distance, speed, physical stability, and composition, they will launch the actual mining spacecraft.

Some of them may be swarms that will grab asteroids and bring them closer to Earth for mining. Others will be large containers that will engulf the asteroids to move them and process them.

Eventually, Planetary Resources wants to start a new industry in space, one that may become the main engine of humanity's future. The company believes many others will follow its business model. The group of investors believe that the search for resources is the only way for humans to move forward and, in a few decades, space mining will be considered a normal industry. They think that this may save Earth from its own destruction, since we are quickly consuming our resources.

It sounds like science fiction, but the people behind PR are convinced they can turn fiction into fact. And they are putting up the means to start it. I want to believe they will be successful. Even while the road will be hard and they may not succeed, I think others will end their task

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