**Mining for metals on an asteroid: Spacecraft could begin drilling on passing rocks within just TWO YEARS**

* **Deep Space Industries joins Planetary Resources in race to explore rocks**
* **First prospecting spacecraft could launch by 2015 as satellite 'piggyback'**
* **Company wants to find platinum on asteroids as they hurtle past the earth**

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Asteroids could be mined for useful ores and minerals as they hurtle past the Earth under plans by a U.S. company to launch its first rock-prospecting spacecraft by 2015.

Deep Space Industries announced today that it intends to launch a fleet of unmanned ships to intercept small asteroids as they speed past our own planet, possibly finding metals such as platinum.

The company joins a host of other start-up firms which hope to soon exploit the untapped resources of near-Earth objects to help fuel our civilisation's next phase of technological development.

'Using low cost technologies, and combining the legacy of our space program with the innovation of today’s young high tech geniuses, we will do things that would have been impossible just a few years ago,' said chairman Rick Tumlinson.

DSI hope to launch their first prospecting spacecraft, which they dub Firefly, in just two years time for missions lasting between two to six months.

The unmanned 55lb (25kg) craft will be built using low-cost cubesat components and make it into orbit by piggybacking on the launch of larger communications satellites.

Mr Tumlinson said the rapid development of computer technology had made it possible for scores of the tiny Fireflies to be easily built and launched for whenever they are needed.

'We can make amazing machines smaller, cheaper, and faster than ever before,' he said. 'Imagine a production line of FireFlies, cocked and loaded and ready to fly out to examine any object that gets near the Earth.'

DSI is only the latest firm set up to take on the challenge of mining extraterrestrial objects.

Avatar director James Cameron and Google executives Larry Page and Eric Schmidt have publicly backed another venture called Planetary Resources which also aims to harvest asteroids for their wealth.

The potential profits are immense. Last spring it was estimated that one single asteroid in our solar system - 241 Germania - has $95.8trillion of mineral wealth inside it.

That's nearly as much as the annual GDP of the entire world.

However, it's not yet clear who owns the asteroids spinning around near-Earth space, which is, according to the 1967 Global Space Treaty, ‘a global commons’.

Nevertheless, DSI, which will hold its official launch event later today at the Museum of Flying in Santa Monica, California, has plunged into the private enterprise space race with enthusiasm.

In a release, the company claims it will begin launching its second phase of satellites as soon as 2016, which it hopes will be able to carry out round-trip missions to collect samples for analysis back on Earth.

Chief executive David Gump, who produced the first ever TV commercial shot on the International Space Station, said: 'Using resources harvested in space is the only way to afford permanent space development.

'More than 900 new asteroids that pass near Earth are discovered every year. They can be like the Iron Range of Minnesota was for the Detroit car industry last century – a key resource located near where it was needed.

'In this case, metals and fuel from asteroids can expand the in-space industries of this century. That is our strategy.'

Eventually, the company hopes harvest asteroids for etals and other building materials, to construct large communications platforms to replace communications satellites and, later, solar power stations to beam carbon-free energy to consumers on Earth.

As DSI refines asteroids for in-space markets, it also will harvest platinum group metals for use back on Earth, such as pollution control devices.

In keeping with the ambitions of other space-mining companies, DSI claims that harvesting asteroids for their resources could also help with an eventual manned mission to Mars.

Mark Sonter, a member of the DSI's board of directors, said: 'Mining asteroids for rare metals alone isn't economical, but makes sense if you already are processing them for volatiles and bulk metals for in-space uses.

'Turning asteroids into propellant and building materials damages no ecospheres since they are lifeless rocks left over from the formation of the solar system. Several hundred thousand that cross near Earth are available.'

**TOP FIVE POTENTIAL ASTEROID MINING PROSPECTS**

* **162385 (2000 BM19)** - Profit: $6.94trillion
* **4034 Vishnu** - Profit: $5.28trillion
* **65679 (1989 UQ)** - Profit: $1.74trillion
* **5143 Heracles (1991 VL)** - Profit: $2.33trillion
* **7753 (1988 XB)** - Profit: $1.31trillion

**Source:**[Asterank](http://www.asterank.com/%22%20%5Ct%20%22_blank)

The only potential problem that DSI faces is funding. While Planetary Resources boasts the backing of tycoons like Cameron, Schmidt and Page, DSI are hoping to fund their operation from commercial sponsorship.

'The Google Lunar X Prize, Unilever, and Red Bull each are spending tens of millions of dollars on space sponsorships, so the opportunity to sponsor a FireFly expedition into deep space will be enticing,' said Mr Gump.

A similar funding plan was suggested to Congress for future Nasa missions by influential lobbyist Robert Walker last month, who said the next Mars rover could be sponsored by Go Daddy.

DSI's release says the company is now looking for customers and sponsors prepared to take 'the long view' who want to be part of creating the 'new space economy'.

Nevertheless, the company claims it will be ready to harvest asteroids for metals and other building materials for use in space within a decade - and the potential profits are astronomical.