US Stock Express

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4 Robotaxi Fore-Runners

Cruise of GM Status: Died

Waymo of GOOG Status: Dying

ZOOX of AMZN Status: Will be born soon

Robotaxi of TSLA Status: Will rule all roads on earth

Cruise started in 2020 and deceased running in 2024 and changed to develop hands free driving. Waymo rely on radar of high resolution map and when successful in one city, will go for another city one by one. How about inter-city highways? Waymo must have a reformation for it has been running since 2020 and no prominent attraction. ZOOX of AMZN will be launched out within one month.

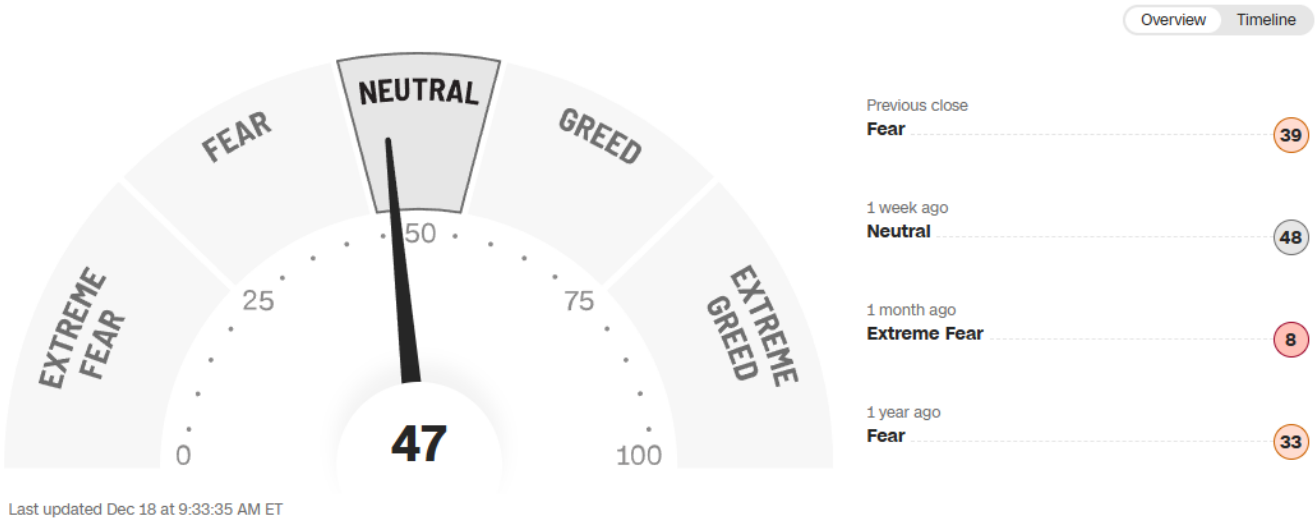
Tesla rely on sensor as human eye and can go everywhere on earth and no need to update any map. We are waiting now every minute that the next minute Tesla will announce their Full Self Driving can apply to 8 million e-cars of Tesla on earth at once. Tesla is developing in 2 parallel lines, that is Robotaxi and Full Self Driving, amd not just robotaxi or just atuomonous driving.

Please watch my Youtube video for them: [79) Robotaxi of TSLA, GOOG autotaxi Waymo and GM , AMZN auto taxi vs Air Taxi, Stock Top@ 20240414 - YouTube]

Risk disclosure: Price can go up and down at any moment, use free money to trade and bear the risk according to your own capital;
Never trade with money that has a deadline for withdrawal.
All suggestions are for reference only, even AI cannot be 100% reliable, final decision still lies upon investors.
Copy trading cannot replicate another trader's background or psychological state.

Fear & Greed Index

What emotion is driving the market now?
Learn more about the index



North East West South is *NEWS*

The OHISAMA project of Japan of generating electricity in space and send back to earth proved successful now. Researchers are from Kyoto University and supported by Japan Aerospace Exploration Agency (JAXA). Some said it is confirmed and some not. The Express will keep on following this project.

The United States on Wednesday approved $11.1 billion in arms sales to Taiwan, the largest ever U.S. weapons package for the island which is under increasing military pressure from China. It surpassed the total arms sales of Joe Biden in his 4-year term which was only 8.4 billion. It's the 139th arm sales to Taiwan since 1979 the open-door policy of China.

While intensifying its crackdown on Latin American drug cartels, US President Donald Trump yesterday said he would classify fentanyl as a weapon on par with nuclear and chemical weapons. The executive order states that "illicit fentanyl is closer to a chemical weapon than a drug," and its manufacture and distribution pose a threat to US national security.

According to a report released today by the International Energy Agency (IEA), global coal demand is expected to reach a record high in 2025, partly due to the Trump administration's policies promoting the coal industry.

Google's parent company, Alphabet, has filed a lawsuit against a Chinese group suspected of cybercrime, accusing the organization of orchestrating a large-scale phishing campaign to trick US citizens into providing their credit card numbers. The group, referred to by Google as "Darcula," developed a malware suite that allowed users to automatically send numerous text messages claiming to offer free plans for Google services such as YouTube Premium. In reality, these messages were designed to trick recipients into handing over financial information, allowing Darcula to steal the victims' funds.

World Observation

Day 1396
Russia/Ukraine Conflict

Mars Landing 2030

(5) Why we have to explore the space

The Apollo Project of Landing on the Moon aroused great discussion at that time. It was the greatest American project ever, people were querying is it worthy of spending too much money in the Space far beyond and neglect poverty and so many problems on earth. Why don't we use those resources on earth to fight against disease, poverty and environmental protection. At that time there was no social media, no internet, but still aroused hot discussions, even in high school composition and debate outside the US, they have to talk about such a topic.

In terms of academic research, no doubt it is necessary. But the problem lies on the scale is too large or not. When viewing from the past to future, it is a MUST. Once people thought that the earth is flat and is the centre of the universe, for we really watch the sun and moon goes round the earth from day to night. Anyone who says the earth is round and the earth circulates round the sun would be considered crazy or heresy. But at length proved the crazy saying is correct and the correct version is wrong.

People want to know the beginning of the universe and know more concerning the Big Bang and is there any life and culture beyond earth. Knowledge is invaluable and hard to be measure by money.

Space Exploration is also a method to show the nation's power. Besides the economic success, the nation's power and effort can be shown be space exploration. During the World War II, the landing of Normandy brought the

war to the last stage of heading against Berlin. The Allied force moved from Normandy westward to Berlin, and Red Army moved eastward to Berlin. Soviet Union arrived first because their route is shorter and entered the prime minster house first. Adolf Hitler committed suicide and thus ended the European War. Soviet Union seemed to be the winner. But the two atomic bombs of US led to the real end of World War II. Both US and Soviet Union wanted to be the only leader of the world.

Thus started the Cold War, 5 powers of the United Nations tried to develop atomic bombs one by one. On October 4th 1957, Soviet Union launched the first satellite *Sputnik 1*which is the first artificial satellite to orbit round the earth and space race started. It circulates round the earth every 96 minutes. On November 3rd 1957, *Sputnik 2* lunched with a dog called Laika into space, but unluckily died. Anyway, space race carries on as usual.

When US launched the *Explorer 1* on January 31st 1958, apparently later than Soviet Union. But they found one more important reason must chase up besides reputation. That is space exploration can be used for intercontinental missile shooting and carry atomic bombs across the ocean to reach another side of the earth.

After World War II, the most important thing is to develop military power. If you have strong military power, you can end the war by just two atomic bombs. Who owes the strongest weapons, who is the leader of the world. This is even more important than economic power, cultural power, education or environmental protection. Artificial satellites can be used to guide the intercontinental missiles and who own the most satellites around the orbit of earth, who is the leader of the world.

This is how the Space Race begins.

Short answer: Yes — Japan's *Ohisama* project is underway, and in 2025 it began its first real demonstration of beaming solar power from space to Earth. The tests have shown that transmission is possible, though only at small scales so far. It's not yet a full commercial success, but the milestone marks a breakthrough toward space-based solar power. [1] [2] [3]

🤩 What the Ohisama Project Is

- **Name meaning:** *Ohisama* means "sun" in Japanese, symbolizing its solar energy mission. [1]
- **Goal:** To collect solar energy in orbit, convert it into microwaves, and beam it wirelessly to Earth.
- **Why space?** Solar panels in orbit can collect sunlight continuously, unaffected by weather or night cycles, offering a potential source of clean, uninterrupted energy.

🚀 Status in 2025

- **Demonstration phase:** In 2025, Japan launched a small satellite (about the size of a washing machine) into low Earth orbit (~400 km altitude). [2]
- **Transmission test:** The satellite successfully converted sunlight into microwaves and sent them down to a ground antenna array in Suwa, central Japan. [2]
- **Scale:** The transmitted energy was faint — enough to prove the concept, but far from powering homes or cities.

⚡ Success or Not?

- **Yes, successful as a *proof of concept*.** Japan achieved the first real test of orbital power transmission in 2025. [2] [3]
- **No, not yet commercially viable.** The energy levels are still tiny, and scaling up to gigawatt-level power stations will take years of engineering, funding, and regulatory work.
- **Next steps:** Japan's roadmap envisions larger satellites and eventually a space-based solar power station, but this is a long-term goal beyond 2030. [1] [3]

🌍 Why It Matters

- **Energy independence:** Could reduce reliance on fossil fuels and imported energy.
- **Climate impact:** Offers a clean, continuous power source to help fight climate change.
- **Global race:** The U.S. and China are also pursuing space solar power, making this a strategic technology frontier.

👉 In summary: **Japan's Ohisama project did beam electricity back to Earth in 2025, marking a historic step.** But it's still experimental — think of it as the Wright brothers' first flight rather than a full airline industry. The real challenge now is scaling it up to meaningful power levels.

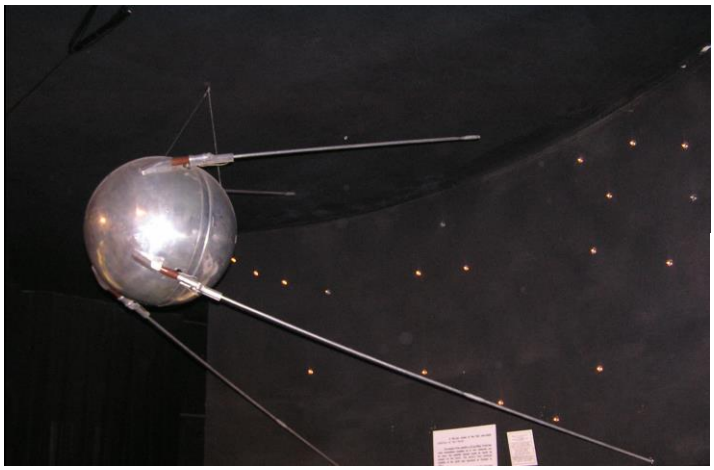
Would you like me to lay out a **timeline of milestones (2025 → 2035)** showing when Japan expects larger-scale deployments? That could help clarify how close we are to practical use.

The OHISAMA project (led by Japan Space Systems, a public-private partnership involving JAXA and other entities) is an initiative to develop space-based solar power (SBSP) technology. It involves launching a small satellite to collect solar energy in low Earth orbit and transmit it wirelessly to Earth via microwaves, aiming to demonstrate the feasibility of continuous, weather-independent renewable energy.

The project is actively underway, with ongoing research and development. Key milestones include successful ground-based wireless power transmission tests and plans for aerial demonstrations. However, the core space-to-Earth transmission experiment was targeted for sometime in 2025, with the satellite launch expected during the year (no specific date has been publicly confirmed beyond general 2025 timelines). powerinfotoday.com +2 more

As of December 18, 2025, there are no verified reports from official sources or major news outlets confirming a successful space-to-Earth power transmission. Some social media posts and non-official articles have claimed a demonstration occurred around early December 2025 (e.g., December 5), but these appear speculative or unconfirmed, as they lack supporting details from Japan Space Systems, JAXA, or peer-reviewed announcements. Official updates from Japan Space Systems as recent as November 2025 discuss "efforts toward" the OHISAMA project in events like NIHONBASHI SPACE WEEK 2025, suggesting it's still in progress without mention of a completed orbital demonstration. instagram.com +2 more

If the demonstration hasn't occurred yet, it could be due to technical challenges, launch delays (e.g., via Japan's H3 rocket or international partners), or testing refinements. The project remains a promising step toward larger-scale SBSP systems, potentially capable of gigawatt-level output in the future, but the 2025 target for initial transmission has not been publicly confirmed as achieved. For the latest official status, check Japan Space Systems' website or JAXA updates.



WIKIPEDIA
The Free Encyclopedia

Sputnik 1 (/ˈspʌtnɪk, ˈspʊtnɪk/, Russian: Спутник-1, *Satellite 1*), often referred to as simply **Sputnik**, was the first artificial Earth satellite. It was launched into an elliptical low Earth orbit by the Soviet Union on 4 October 1957 as part of the Soviet space program. It sent a radio signal back to Earth for three weeks before its three silver-zinc batteries became depleted. Aerodynamic drag caused it to fall back into the atmosphere on January 4, 1958.

It was a polished metal sphere 58 cm (23 in) in diameter with four external radio antennas to broadcast radio pulses. Its radio signal was easily detectable by amateur radio operators,[6] and the 65° orbital inclination made its flight path cover virtually the entire inhabited Earth.

The satellite's success was unanticipated by the United States. This precipitated the American Sputnik crisis and triggered the Space Race. The launch was the beginning of a new era of political, military, technological, and scientific developments.[7] The word *sputnik* is Russian for *satellite* when interpreted in an astronomical context;[8] its other meanings are *spouse* or *travelling companion*.[9][10]

Model of Sputnik 2 at the Memorial Museum of Cosmonautics in Moscow

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Sputnik 2 (Russian pronunciation: [ˈsputʲnʲɪk], Russian: Спутник-2, *Satellite 2*), or **Prosteyshiy Sputnik 2** (**PS-2**, Russian: Простейший Спутник 2, *Simplest Satellite 2*),[3]:155 launched on 3 November 1957, was the second spacecraft launched into Earth orbit, and the first to carry an animal into orbit, a Soviet space dog named Laika.

Launched by the Soviet Union via a modified R-7 intercontinental ballistic missile, Sputnik 2 was a 4-metre-high (13 ft) cone-shaped capsule with a base diameter of 2 metres (6.6 ft) that weighed around 500 kilograms (1,100 lb), though it was not designed to separate from the rocket core that brought it to orbit, bringing the total mass in orbit to 7.79 tonnes (17,200 lb). It contained several compartments for radio transmitters, a telemetry system, a programming unit, a regeneration and temperature-control system for the cabin, and scientific instruments. A separate sealed cabin contained the dog Laika.

Though Laika died shortly after reaching orbit, Sputnik 2 marked another huge success for the Soviet Union in The Space Race, lofting huge payload for the time, sending an animal into orbit, and, for the first time, returning scientific data from above the Earth's atmosphere for an extended period. The satellite re-entered Earth's atmosphere on 14 April 1958.

🚀 Details of Explorer 1

- **Launch date & time:** January 31, 1958, at 03:47 GMT.
- **Rocket used:** Juno I (a modified Jupiter-C rocket).
- **Launch site:** Cape Canaveral, Florida (Atlantic Missile Range, LC-26A).
- **Satellite size:** About 2 meters long, 15 cm in diameter, weighing ~14 kg.
- **Mission duration:** Operated for 111 days, though it remained in orbit until 1970.

🌎 Historical Context

- **Sputnik shock:** The Soviet Union's launches of *Sputnik 1* (October 4, 1957) and *Sputnik 2* (November 3, 1957) surprised the U.S. and triggered the "space race."
- **Response:** Explorer 1 was America's answer, proving U.S. capability to reach orbit.
- **Scientific achievement:** Instruments on Explorer 1, designed by Dr. James Van Allen, discovered the **Van Allen radiation belts**, a major breakthrough in space science.

📈 Significance

- **Cold War rivalry:** Explorer 1 marked the U.S. entry into the space race against the Soviet Union.
- **Foundation for NASA:** The success of Explorer 1 helped accelerate the creation of NASA later in 1958.
- **Legacy:** Explorer 1 was the first of many satellites that established America's long-term leadership in space exploration.

👉 In summary: **The U.S. launched its first satellite, Explorer 1, on January 31, 1958 — just months after Sputnik 1 and 2.** It not only matched the Soviet achievement but also made a landmark scientific discovery that shaped space exploration.