

Israel plans its first moon launch in December

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Organisers hold a press conference on July 10, 2018 ahead of the planned launch of Israel's first lunar spacecraft

An Israeli organisation announced plans Tuesday to launch the country's first spacecraft to the moon in December, with hopes of burnishing Israel's reputation as a small nation with otherworldly high-tech ambitions.

The unmanned spacecraft, shaped like a pod and weighing some 585 kilogrammes (1,300 pounds) at launch, will land on the moon on February 13, 2019 if all goes according to plan, organisers SpaceIL told a news conference in Yehud, central Israel.

The vessel will be launched via a rocket from American entrepreneur Elon Musk's SpaceX firm and its mission will include research on the moon's magnetic field.

Its first task, however, will be to plant an Israeli flag on the moon, organisers said.

The project began as part of the Google Lunar XPrize, which in 2010 offered \$30 million (25 million euros) in awards to encourage scientists

and entrepreneurs to come up with relatively low-cost moon missions.

Three young Israeli scientists, Yariv Bash, Kfir Damari and Yonatan Winetraub, decided to join the fray.

"We met in a pub and started to discuss what it meant," Damari recalled.

The trio formed SpaceIL and partnered with state-owned Israel Aerospace Industries, envisioning a very small craft they believed could land on the moon by 2013.

"As we went deeper into the project and the more people joined, we understood its complexity," Damari said.

Although the Google prize expired in March without a winner having reached the moon, Israel's team pledged to push forward.



Israeli billionaire investor Morris Kahn (C) poses with Israel Aerospace Industries (IAI) Space Division general manager Opher Doron (1st-R) during a news conference to announce the launch of a spacecraft to the moon

A key figure to hop on board the project was Morris Kahn, a South African-born Israeli billionaire, who heard SpaceIL present their project.

"I thought this was a great idea," he said, "and I asked them—'do you have any money?'"

"They hadn't really thought about the financial side," Kahn said, relaying how he gave them an initial grant of \$100,000, with his support growing with the project to largely cover the \$95 million project.

To Kahn, for Israel to have a stake on the moon alongside the three global powers already there—the United States, Russia and China—would be "a tremendous achievement" that "will give us a sense of pride we really need".

'Backup plans'

Yossi Weiss, the CEO of IAI, said conquering space is not just a way to prove technological prowess, but also an increasingly urgent need for a human race rapidly dilapidating its resources.

"We need to think about backup plans," Weiss said. "Earth is becoming small," and ultimately "the future of humanity is in space".

While the planned landing of the small unmanned vessel is one small step toward that end, it is nonetheless "a very significant one", Weiss said.

On the moon, the vessel will transmit data to the control centre at IAI for two days before its systems shut down.

It is hoped the mission's success will inspire scientific curiosity among Israeli youth.



Israeli Aerospace Industries director of Space division Opher Doron (R) and billionaire investor Morris Kahn (2nd-R) present a spacecraft during a press conference to announce its launch to the moon, in Yehud, central Israel

"We're trying to replicate the Apollo effect in the US," Kahn said, referring to the US programme that landed the first humans on the moon in 1969.

"If we're going to continue being the start-up country we've got to get engineers."

But even before its launch, the pod and its project have stirred great interest among children, according to Damari.

"They say kids are excited by space, robots and dinosaurs. We have a robotic spacecraft -- that's two out of three," he said.

"When you meet school children and tell them about the project you can see the spark in their eye.

"Even if they don't deal with space but enter another scientific or engineering field, we've realised the vision."

Damari noted the shift his project created in the Israeli space industry, which has focused on security-related projects and long carried out satellite launches.

"Since we began you can see more and more start-ups and projects that deal with space in the civilian aspect," he said.

The relatively lean Israeli project, which was not initiated or funded by the state, could also mark a change in the way space-related projects are construed and performed, paving the way for more private initiatives.

"It's going to show the way for the rest of the world" to send a spacecraft to the moon at a reasonable cost, said Ofer Doron, head of IAI's space division.

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