Japanese startup gears up for its fourth rocket launch

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Credit: Interstellar Technologies Inc.

Japanese startup Interstellar Technologies Inc. (IST) gears up to conduct another rocket launch on Saturday July 13, just about two months after it successfully sent the MOMO-F3 sounding rocket into space. The upcoming mission, designated MOMO-F4 is slated to take to the skies at 11:05 JPT (2:05 GMT) from a launch pad in Taiki, on the island of Hokkaido.

MOMO-F4, similar in size to MOMO-F3, stands 33 feet tall, is about 1.64 feet in diameter and weighs approximately one metric ton. It is a liquid-propellant sounding rocket capable of reaching an altitude of over 100 kilometers—the so-called Karman line, defined as the boundary between Earth's atmosphere and outer space.

One of the most interesting goals of the MOMO-F4 mission will be releasing three origami paper airplanes into space.

"MOMO-F4 will carry them to an apogee over 100 kilometers, and from that point, paper planes will be ejected from the rocket into space through the special cylinder whose diameter is 2 centimeter [0.79 inch], developed by Interstellar Technologies. Castem Co., which developed the origami paper airplanes expects that they will slowly fall in the microgravity state in the suborbital area, then descend from the atmosphere to the ground," IST told Astrowatch.net.

Moreover, IST plans to add a distilled Japanese sake to the MOMO-F4's fuel. The sake named KID will be provided by Heiwa Shuzo Co Ltd.

IST's previous booster, MOMO-F3, became the first privately developed rocket in Japan to reach outer space. After its liftoff at 5:45 a.m. JST on Saturday, May 4 (20:45 GMT, Friday, May 3), the rocket burned for nearly two minutes (118 seconds) and reached the maximum altitude of 113.4 kilometers.

The company's other two launch attempts were unsuccessful. MOMO-F2 fell to the ground and exploded shortly after its launch on June 30, 2018, while communications with MOMO-F1 were lost about a minute after it had left the pad in July 2017.

Besides the development of MOMO launchers, IST is currently also working on the creation of a small orbital rocket named ZERO, designed

to carry about 100 kilograms of payload into space. This could be another step toward the company's ultimate goal to change the economics of space launch services, making it more economical to existing customers and accessible to entirely new markets.

Provided by AstroWatch