

The Future and Prospects of Compact and Simplified Next-Generation Hybrid Rockets

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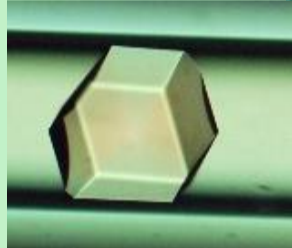
Background

Space exploration plays a critical role in shaping our future. (Please see below.)

Space is essential for **resource gathering**. This can also lead to a reduction in child labor.



In microgravity, **protein crystals** can be produced without impurities. This can further advance the development of various kinds of medicine, such as **drugs combating influenza**.



protein crystals



Influenza virus



Space offers unique opportunities for scientific research, such as **particle physics** and studies requiring zero-gravity environments.



Space exploration faces challenges

One major issue is environmental impact. Rocket fuels, such as ammonium perchlorate, release harmful chlorine compounds that cause acid rain, global warming, and ozone depletion. Rockets can become **extremely expensive** due to the fuel costs.

Our Hybrid Rockets

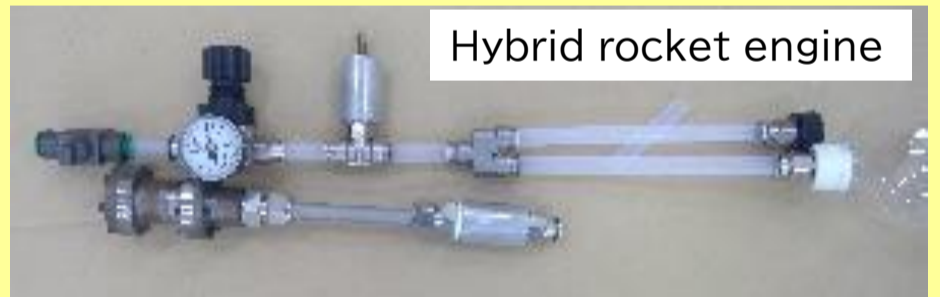


Hybrid rocket

Hybrid rockets use safer and more **affordable fuels**. These rockets use materials such as ABS resin and powdered aluminum mixed ice. We have been doing tests using our can-satellite, or "CANSAT". Using data gathered from these tests, we have begun building and improving our rockets.

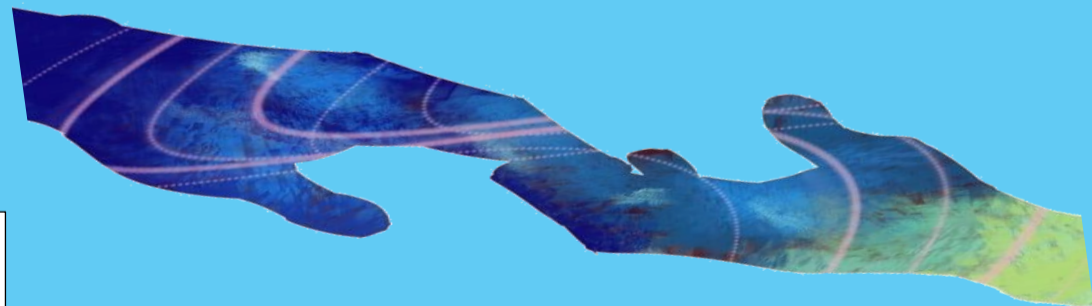


"CANSAT"



Hybrid rocket engine

Science and Humanities



knowledge of the law

efficiency

Things needed to launch a rocket

engineering

cooperation

Space exploration is not just about reaching the stars, it's about solving problems on Earth and building a sustainable future for humanity. The aerospace industry cannot be established solely on the basis of specialized knowledge in science and engineering. We also need to work hand-in-hand with both science and humanities majors to accelerate progress in the field of space sciences and exploration.