







TEAM PINAKA

A STUDENT SPACE TECHNOLOGY TEAM





ABOUT US



Team Pinaka is a group of eight highly motivated engineers with a diverse range of expertise in aerospace, robotics, electronics, and mechanical engineering. Each member contributes a unique combination of skills. Our rocket is being constructed with precision and accuracy by manufacturing experts, who work directly with machines and equipment. Design wizards have experience in SolidWorks that seamlessly combines forming a suitable rocket design. In Ansys, aerodynamics experts are well-equipped to ensure that the rocket glides like a blade in the air. Propulsion experts possess a wealth of knowledge and experience regarding motors and propellants; they have conducted extensive analysis to provide us with a more reliable, potent, and suitable propulsion system. Electronics experts are extremely proficient in their field; they are responsible for the

integration of critical avionics and electronics, thereby providing rockets with intelligence. With their diverse backgrounds and shared passion for aerospace, the Pinaka team can tackle any challenge. The ASI and ISRO jury teams have certified the PDR for the first phase of model rocketry. Our team has extended an invitation to the Air Force Station in Bengaluru. We are currently in the process of finalizing a critical design report and the rocket manufacturing process for Phase 2, ensuring that we meet the deadlines and make the best possible effort.

ACHIEVEMENTS OF TEAM PINAKA

INDIA SKILLS 2023 - INDUSTRIAL DESIGN TECHNOLOGY

One of our team members competed in the 2023 IndiaSkills competition and advanced to the Industrial Design Technology nationals, showcasing remarkable talent and proficiency in product design, conceptualization, and presentation utilizing Fusion360 and Photoshop.

WINNERS OF AIU ANVESHAN NORTH REGION NATIONALS 2024

Our Team presented a Novel CanSat design which displayed various new mechanisms for stable image capturing and pollution data capturing. Gyro sensor enabled reaction wheel stabilization is also another advantage of our design.

SIH NATIONALS FOR VTOL UAV

Our team also presented a unique take on UAV which can vertically take off and land (VTOL) during SIH 2024 Hardware edition. Our team didn't win the prize; however, they were able to secure sponsorship of ₹5,00,000 for further development of this project.

IN-SPACE MODEL ROCKETRY



IN-SPACe Model Rocketry India Student Competition 2024-25 is being organized by the Astronautical Society of India in association with ISRO. This competition aims to provide a realistic experience to students and start-ups, in designing and launching an amateur rocket that meets a specified set of mission requirements. The competition involves the design, development & launch of a Model Rocket carrying a payload of 1 kg mass to an altitude of 1000m above the launch site, along with safe ejection of the payload and safe landing of the rocket

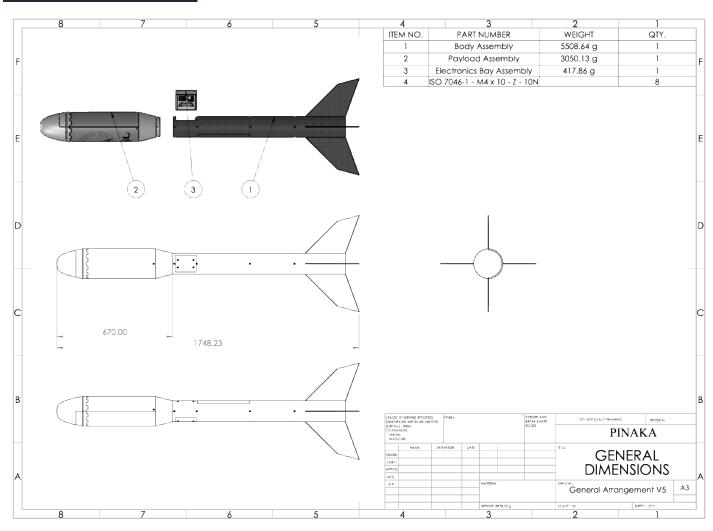
DEVELOPMENT PROCESS

In the development process for Phase 2, we begin with the Critical Design Review (CDR) to finalize designs, validate subsystems, and ensure structural integrity and safety. Next, in the Manufacturing Phase, components are fabricated and subassemblies tested, with electronics and avionics integrated. During Integration and Assembly, all systems are combined, and compatibility is verified. The rocket then undergoes rigorous Ground Testing, including static motor tests, parachute deployment, and sensor calibration. In the Flight Readiness Review, pre-launch simulations and safety checks ensure compliance with competition requirements. Finally, on launch day, the rocket is inspected, launched, and monitored, followed by a detailed flight data analysis to evaluate performance and identify improvements.





GLIMPSE OF OUR PROJECT











WHY SPONSOR US?

Team Pinaka, a group of 8 passionate and ambitious students, has achieved the incredible feat of being one of the top 20 finalist teams in India's first-ever rocketry challenge. This milestone not only reflects our dedication to excellence in aerospace innovation but also underscores the immense potential of young minds in shaping the future of space technology.

By sponsoring us, you gain the opportunity to:

- Support Cutting-Edge Innovation:
 Be a part of a groundbreaking initiative that fosters STEM learning and advances India's potential in rocketry and aerospace.
- Promote Youth Excellence:
 Empower the next generation of engineers and innovators. Your sponsorship helps us access resources, technology, and mentorship needed to excel in this prestigious challenge.
- Increase Brand Visibility:
 As a sponsor, your brand will be showcased at national-level events and in promotional materials, reaching a diverse audience including industry leaders, academic institutions, and future talents.
- Align with a Prestigious Initiative:
 Associating with India's first rocketry challenge demonstrates your commitment to advancing science, education, and technological development.
- Inspire a Legacy of Achievement:

 Your support will directly contribute to our journey of learning, experimentation, and innovation, inspiring others to pursue similar goals.

What We Seek:

We are looking for financial and technical support to cover costs related to materials, equipment, travel, and other essential resources required to design, build, and launch a high-performance rocket.

Together, let's reach for the stars! With your support, Team Pinaka will not only compete but also inspire countless others to dream big and achieve more.

MEANS OF SPONSORSHIP

We accept a plethora of sponsorship forms or types. Brands can qualify for the respective sponsorship tiers through the donation of in-kind goods which include:

- Software License
 Brands can provide license of software which we are using like solidworks, simscale, ansys, burnsim, openrocket, matlab or many more.
- Equipments or components

 Brands can provide components which will be used in our flight computer, motors or the manufacturing of the body of rocket.
- Apparels
 Brands can provide custom designed team tshirts or footwear that our team will wear at the event or during any online or AIR promotional content.
- Financial
 Brands can provide financial support to cover additional costs for our team like travelling cost.







SPONSORSHIP PACKAGE

With the help solicited, we will be able to succeed in the completion of such projects and compete in In-SPACe Model Rocketry competition. Your contributions will also serve as a morale booster in the completion of our PINAKA project. A sponsorship chart is depicted below which is the sponsorship standard that Team Pinaka uses. Benefits from the team will be provided in every possible way the team can, based on the monetary value of your support. The team is willing to work out any other way so that we end up with a mutually beneficial partnership.

- TITLE SPONSOR (Minimum 50,000)
- ASSOCIATE SPONSOR (Minimum 25,000)
- POWERED BY SPONSOR (Only for brands providing equipment, components or software licenses worth minimum 10,000 INR)

BENIFITS	POWERED BY	ASSOCIATE	TITLE
Website presence	✓	✓	✓
Apparel presence	✓	✓	✓
On-Rocket Body	✓	✓	✓
Product Promotion**		✓	✓
Hands on promotion of product*			✓
Rocket naming after brand.			✓

^{*} A dedicated small part in our promotional content where our team will personally shout out and explain the product the brand wants to promote.

^{**} A dedicated small part in our promotional video where we will run the video ad provided by the brand.