



A Path to the Stars

We are students, staff, and motivated individuals in the Portland State community who come together to build and test rockets. We have projects that span many disciplines. We design and fly sophisticated flight computers and experimental control modules.

PSAS started as a group of undergraduates who wanted to work on something really exciting. They built and launched their first rocket in 1997 and never looked back. Years later PSAS has grown to a large group that routinely breaks the mold in the amateur rocketry world. Years later PSAS has

grown to a large group that routinely breaks the mold in the amateur rocketry world. We have been the first amateur group in the world to fly off the shelf Wi-Fi in a rocket. We have pushed the boundaries of home building techniques for ultra-low cost aero-space components and come up clever solutions for real time embedded programming.

We are one of the most exciting and interesting engineering clubs in the Pacific Northwest, we are Portland State Aerospace Society.



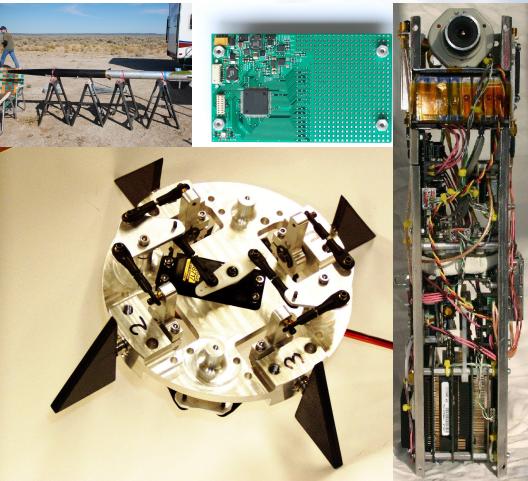
PSAS is one of the premier university rocketry groups in the Northwest, building ultra-low-cost, open source rockets that feature perhaps the most sophisticated amateur rocket avionics systems out there today.



Who We Are

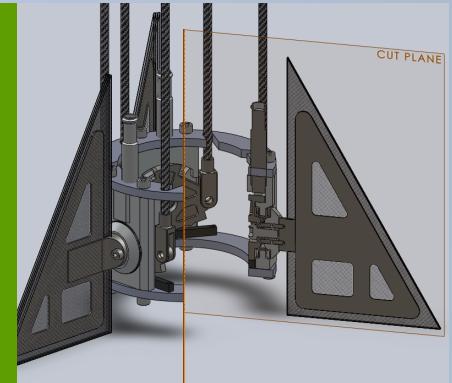
We are a group of students, alumni, and industry mentors who have a love for difficult, hands on, cross-disciplinary engineering projects. Our collective knowledge is broad and deep. Over the last decade we have been designing and building world class experimental rockets.

We are dedicated to an open approach to engineering — sharing what we learn with the larger amateur rocket community.



What We Do

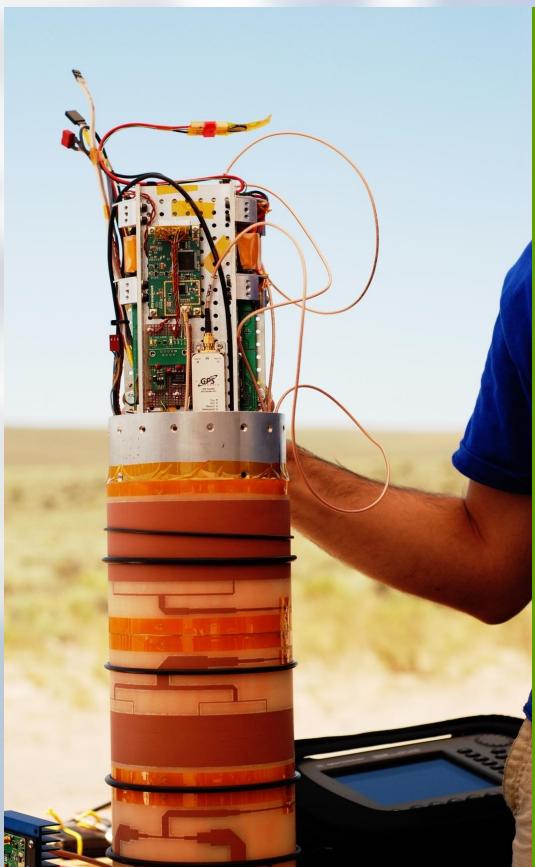
PSAS builds and tests rockets. We have ongoing projects that involve all aspects of aerospace engineering from software and embedded systems development to electrical and mechanical engineering. We do data analysis, simulation, controls engineering and communication design. We are scientists, and engineers working on hard, interesting problems in aerospace.



Accomplishments

Over the years we've had many notable successes:

- Only group to push off the shelf Wi-Fi technology past Mach 1
- Fully successful roll control module designed and tested from the ground up
- Perfected the design of linearly polarized cylindrical patch antennas with simple manufacturing techniques at a tiny fraction of the market price
- First real time Linux on x86 flight computers flown on amateur rockets
- Fully tested a unique recovery system that has 100% success rate
- Long distance, safe wireless launch control
- Found and documented many garage manufacturing techniques



Big Impact

Over the years PSAS has worked on many technologies for use in amateur rocketry. In addition to giving back techniques and knowledge to the community PSAS has had a big impact on the live of its members.

Our student members gain invaluable experience and knowledge working alongside industry mentors and Portland State professors, giving them an exceptional head start on their future pursuits.



Going Forward

We are an educational, not for profit group and we rely on support from our community to move forward. We are funded through grants and donations. In the future we hope to build larger, faster, even more innovative rockets.

