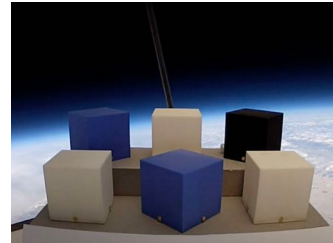


Sacramento L5 Society Kicks Off High School STEM Contest

Free MiniCube balloon flights to the Upper Atmosphere!

The Sacramento L5 Society (SacL5), one of the oldest continuous non-profit space advocacy groups in the US and a founding chapter in the National Space Society (NSS), is excited to announce the SacL5 MiniCube Contest, a new STEM contest for high schools. SacL5 is offering to defray the cost of lifting the contest winners' experiments into the upper atmosphere. [MiniCubes](#) are small scientific experiments (5cmx5cmx5cm and 0.25 kg) carried above 98% of the atmosphere with balloons flown by a local Sacramento business, [JP Aerospace](#) (JPA).



MiniCubes, ~20 mi. altitude



Sacramento SES campus

To inaugurate the contest, a special donation has been made by SacL5 to the [Sacramento School of Engineering and Sciences](#) (Sacramento SES), a local California 7th-to-12th grade school. Since this will be the inaugural flight for the contest, SacL5 will be gifting Sacramento SES up to three MiniCubes and up to 0.75 kg for their experiment or experiments, plus a \$500 stipend to defray costs. Ken Davis, Lead Engineering Teacher for Sacramento SES, has agreed to partner with SacL5 and help his students prepare a MiniCube-based experiment or experiments for launch in 2024. The students will also be given the opportunity to watch the launch of their experiment from JPA's Area 52 launch facility in Lovelock, NV. After receiving the completed MiniCube experiment from SES, JPA will schedule its launch to coincide with one of its future balloon releases. At its maximum height, the balloon pops and the "high rack" containing all the experiments is parachuted back to Earth. After the MiniCube's flight, it is returned to the school along with a data sheet and a CD with images and videos taken during the flight.



Ken Davis, Engineering



MiniCubes join “PongSats” (www.pongsat.org) as a means to get students involved in flying experiments in the upper atmosphere, where conditions approach those at the edge of space. PongSats are ping pong balls cut in half, filled with a young student’s experiment (for example, the humble marshmallow), and then taped back together. Since 2002, JPA has flown, at no charge to the student experimenters, over

18,000 PongSats. Recently, students from Sacramento SES helped pre-7th grade girls prepare PongSats at the school as part of a new girls STEM outreach program, called Project 3598. In a future JPA balloon flight, their PongSat science experiments will be lofted upwards approximately 20 miles, above the vast majority of the Earth’s atmosphere.



SES Project 3598
PongSats



Ed Kulis

Longtime SacL5 Secretary and “IT guru” Ed Kulis is the driving force behind this STEM contest. Ed discovered that Apple, his employer, was one of the companies that worked with [Benevity](#), a service that matches employee charitable giving with their company’s donations. Over the years, Ed has contributed a massive amount of volunteer time, and for the last two years, Apple has donated cash via Benevity as a match for Ed’s SacL5 volunteer

hours. So far, Benevity has paid out about \$13,000 to SacL5, of which \$4,500 is presently reserving space on future JPA flights for the SacL5 MiniCube Contest.

Presently, SacL5 will only be able to sponsor the launch of about 10 MiniCube flights a year. However, SacL5 President Joseph Bland hopes this is just the beginning for his chapter’s free MiniCube program. Says Bland: “It would be fantastic if we could get enough help to lift every high school student’s space experiment idea 20 miles up! But I’ll settle for eventually matching those 18,000 PongSats JP Aerospace has already launched.”

If you are interested in applying for the contest, receiving more information, or donating, please contact either Joseph Bland at joe.bland@nss.org or Paul Turner at balloonwhisperer@gmail.com.