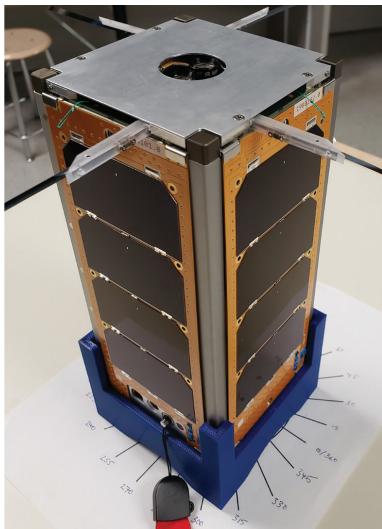


ELaNa 36 Mission

NASA launched a small research satellite, or CubeSat, developed by students and faculty at Robertsville Middle School in Oak Ridge, Tennessee, on SpaceX's 22nd contracted cargo resupply mission with NASA to the International Space Station on June 3, 2021. The CubeSat, called [RamSat](#), will observe forest regrowth in the Gatlinburg, Tennessee, area that was devastated by wildfires in 2016.

RamSat is the sole payload of the 36th [Educational Launch of Nanosatellites \(ELaNa\)](#) mission and was selected through [NASA's CubeSat Launch Initiative \(CSLI\)](#). This mission lifted off from Launch Complex 39A at Kennedy Space Center in Florida aboard a SpaceX Falcon 9 rocket. In addition to the ELaNa 36 CubeSat, this cargo resupply mission carried 7,300 pounds of scientific research and technology demonstrations to the space station. The SpaceX Cargo Dragon spacecraft arrived at the space station on June 5. RamSat is scheduled to be deployed on June 14 from the airlock on the space station by a spring-loaded launcher, placing the small spacecraft into its orbit 250 miles above Earth.



RamSat is a 2U CubeSat measuring 20 cm. X 10 cm. X 10 cm. Using small cameras, RamSat will capture images of forest regrowth, sending those images to ground control in Robertsville Middle Schools' STEM Classroom using radio communication. Traveling at approximately 17,000 miles per hour, RamSat can completely orbit Earth once every 92 minutes. It will spend half of each orbit in sunlight and the other half in darkness, shaded from the Sun by Earth. While exposed to the Sun, solar panels on five of RamSat's sides generate power that can be stored in the CubeSat's lithium-ion battery. This battery powers RamSat's flight computer, cameras, navigational components, and a UHF/VHF radio for 2-way communication with the ground station.

Students will operate the mission using amateur radio frequencies to listen for RamSat flying overhead, send commands to control the spacecraft, and gather image data and information about the spacecraft's health. RamSat's mission could operate for up to 18 months once it is deployed. Since the project began in 2016, over 150 students have had the opportunity to work on RamSat.

CSLI enables the launch of CubeSat projects designed, built, and operated by students, teachers, faculty, NASA Centers, and nonprofit organizations. Managed by NASA's Launch Services Program, ELaNa missions provide a deployment opportunity or ride-share launches to space for CubeSats selected through CSLI. Since its inception in 2010, CSLI has launched 119 CubeSat projects and 125 individual CubeSats

Follow the ELaNa missions and other launches from Kennedy Space Center on social media using [@NASAKennedy](#) and [@NASA LSP](#) on Twitter and [@NASAKennedy](#) and [@NASALSP](#) on Facebook.

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