About Mauve

Mauve, Blue Skies Space's first satellite, was launched on 28 November 2025 aboard SpaceX's Transporter-15 on a three-year mission to measure the activity of nearby stars, helping scientists understand the impact of powerful stellar flares on exoplanets and the prospects of harbouring life.

Mauve is a small satellite operating in a low-Earth orbit, equipped with a 13 cm telescope to observe stars in the ultraviolet and visible wavelengths (200-700 nm).

Mauve was built by a consortium of European companies and launched within 3 years of conception, a fast timeline for science satellites. C3S LLC (Hungary) is the spacecraft's prime and platform provider, with ISISPACE (Netherlands) providing the pointing solution. The telescope, supplied by MediaLario (Italy), is connected via optical fibres from CeramOptec (Latvia) to spectrometers provided by Avantes (Netherlands).

Wavelength Coverage	200 – 700 nm (UV – Visible)
Telescope	13 cm Cassegrain
Spectral Resolution	10.5 nm (R= 20-65)
Detector	CMOS Linear Array
Mass	18.6 kg
Orbit	LEO 10:30 LTDN, 510 km

Mauve's data is made available to participating researchers through a three-year science programme, with those who sign up early being able to lead and shape the observational programme each year. Mauve's current research priorities are:

- Stellar flares: Some of the coolest stars are subject to large explosions (flares) that produce high-energy emissions, occasionally outshining the star itself. Studying these events helps scientists understand how magnetic fields accumulate and release large amounts of energy, and understand similar events produced by our Sun.
- Young exoplanet hosts: Young stars with planets still taking shape around them reveal the early stages of planetary evolution. By studying these systems, scientists trace how planets grow, migrate, and settle into their mature orbits — offering clues to the history of our own Solar System.
- Hot stars: Hot stars emit abundant ultraviolet radiation, and Mauve will study both the youngest ones, surrounded by clouds of gas and dust, and some of the older ones, rapidly rotating and shedding material into surrounding disks of gas, affecting their evolution.
- Binary stars: Systems where two stars orbit one another are vital for testing theories of gravity, stellar mass, and evolution. Because their mutual orbits

can be measured precisely, binaries offer the most accurate way to determine stellar masses, anchoring models of how all stars live and die.

Research institutions worldwide have already secured subscriptions to access data collected by Mauve. These include Boston University, Columbia University, INAF's Osservatorio Astrofisico di Arcetri, Konkoly Observatory, Kyoto University, National Astronomical Observatory of Japan, Maynooth University, Rice University, Vanderbilt University, and Western University.

Learn more about the programme for the first year of operations: https://arxiv.org/abs/2512.16675

Request access to the Mauve Payload Simulator that models the instrument's performance for specific targets: https://bssl.space/mauve/payload-simulator-access-form/

Learn more about Mauve: https://bssl.space/mauve/

Media available at: https://bssl.space/mauve/media-kit/

The project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No. 101082738 and was supported by the UK Research and Innovation (UKRI)'s Horizon Europe Guarantee Scheme.

About Blue Skies Space

Blue Skies Space is a company pioneering a new model to deliver high-quality space science data in accelerated timescales to the global scientific community, helping them to answer humanity's greatest scientific questions. Through a fleet of low-Earth orbit satellites, the company aims to serve the global demand for high-quality science data across many research areas, including the monitoring of stars, understanding what the atmospheres of faraway exoplanets are made of, as well as the composition of asteroids in our Solar System.

With offices in the UK and Italy, Blue Skies Space has assembled an experienced team that has previously worked at organisations such as NASA, Airbus, Surrey Satellite Technology, Caltech and UCL, bringing a wealth of expertise in space science, satellite engineering, satellite construction and operations.

Learn more about Blue Skies Space: https://bssl.space/