

The main payload continues to be the coronagraph with improved capabilities. The main optics for this experiment remains the same. The complete list of payloads, their science objective and lead institute for developing the payload is provided below:

- **Visible Emission Line Coronagraph (VELC):** To study the diagnostic parameters of solar corona and dynamics and origin of Coronal Mass Ejections (3 visible and 1 Infra-Red channels); magnetic field measurement of solar corona down to tens of Gauss – *Indian Institute of Astrophysics (IIA)*
- **Solar Ultraviolet Imaging Telescope (SUIT):** To image the spatially resolved Solar Photosphere and Chromosphere in near Ultraviolet (200-400 nm) and measure solar irradiance variations - *Inter-University Centre for Astronomy & Astrophysics (IUCAA)*
- **Aditya Solar wind Particle Experiment (ASPEX) :** To study the variation of solar wind properties as well as its distribution and spectral characteristics – *Physical Research Laboratory (PRL)*
- **Plasma Analyser Package for Aditya (PAPA) :** To understand the composition of solar wind and its energy distribution – *Space Physics Laboratory (SPL), VSSC*
- **Solar Low Energy X-ray Spectrometer (SoLEXS) :** To monitor the X-ray flares for studying the heating mechanism of the solar corona – *ISRO Satellite Centre (ISAC)*
- **High Energy L1 Orbiting X-ray Spectrometer (HEL1OS):** To observe the dynamic events in the solar corona and provide an estimate of the energy used to accelerate the particles during the eruptive events - *ISRO Satellite Centre (ISAC) and Udaipur Solar Observatory (USO), PRL*
- **Magnetometer:** To measure the magnitude and nature of the Interplanetary Magnetic Field – *Laboratory for Electro-optic Systems (LEOS) and ISAC.*

With the inclusion of multiple payloads, this project also provides an opportunity to solar scientists from multiple institutions within the country to participate in space based instrumentation and observations. Thus the enhanced Aditya-L1 project will enable a comprehensive understanding of the dynamical processes of the sun and address some of the outstanding problems in solar physics.