

Opportunities for Scientific Experiments in PSLV

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PS4 Stage as Orbital platform

Fourth stage of PSLV launch vehicle is offered as an experimental platform, after satellite injection, for conduct of scientific experiments in micro gravity conditions.

Following Indian scientific payloads configured in upcoming PSLV missions:

- **APRS (Automatic packet reporting system)**
- **AIS (Automatic Identification System)**
- **ARIS (Advanced Retarding Potential Analyser for Ionospheric Studies)**

PS4 Stage

- **PS4** - Fourth stage of PSLV
- Uses **2 liquid engines & RCS Thrusters** for propulsion & control
- Responsible for **precise injection** of payloads in desired orbits
- Capability for orbit maneuver using **PS4 restart** and Satellite injection in multiple orbits
- **PS4 will be made operational** after completing primary mission with power, telemetry & telecommand link with ground



Experiment Opportunities

0-g experiments

Technology demonstration experiments

Biological experiments

Student payloads

De-orbit & re-entry for Debris Management



Earth Science Experiments

Tethered robot experiment

Humanoid based robotic experiments

Sample return experiments

Platform Options

Provides **platform for multiple payloads**

Provides:

- **Power**
- **Attitude control**
- **Communication**
- **Data storage**
- **Limited avionics capabilities**

Can **interact with PS4** after detaching from the platform

Can use **COTS hardware**

Additional **structural elements & adapters required** to support payload



Thank You

For any additional information/query contact us : isroic@isro.gov.in