

SpaDeX Mission

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SpaDeX Mission Latest News

Recently, The Indian Space Research Organisation (ISRO) has successfully completed the second docking of its two satellites — SDX01 (Chaser) and SDX02 (Target) — under the SpaDeX (Space Docking Experiment) mission.

About the SpaDeX Mission

- **SpaDeX (Space Docking Experiment)** is a **technology demonstration mission** developed by ISRO to validate the **capability of docking and undocking** two small satellites in **low-Earth orbit**.
- The mission involved two **small satellites**, each weighing around **220 kg**: **SDX01 (Chaser)**, **SDX02 (Target)**
- These satellites were launched by **PSLV-C60** into a **460 km circular orbit** with an inclination of **45 degrees**.

Objectives of the SpaDeX Mission

- **Primary objective:** To **develop and demonstrate** the capability for **rendezvous, docking**, and **undocking** of spacecraft in **orbit**.
- **Secondary objectives:** To demonstrate the **transfer of electric power** between docked spacecraft a crucial component for future **in-space operations**.
 - To develop and validate **composite spacecraft control systems**.
 - To test **payload operations after undocking** — important for deep-space missions.
- With this achievement, **India becomes the fourth country** after the **United States, Russia**, and **China** to successfully **conduct satellite docking operations**.

Source: TH

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