

## CASSINI - MISSION TO SATURN

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The **Cassini** Program utilizes the **Cassini** orbiter of Saturn and the Huygens atmospheric probe of the large satellite Titan. The orbiter will study Saturn, its rings, magnetosphere, icy satellites, and Titan in great detail. Remote sensing and radio science observations of the planet will reveal details of its atmosphere and interior. The rings will also be studied by remote sensing and radio, as well as some of the in situ fields and particles instrument suite. The fields and particles instruments will greatly improve our understanding of Saturn's magnetosphere, complemented by the remote sensing instruments. The icy satellites will be studied in detail by the remote sensing instruments. **Titan**, during each orbital flyby, will be studied by the whole **suite of instruments, including imaging radar sweeps across its cloud-covered surface.**

The **Huygens** probe will reveal the secrets of the second largest satellite in the solar system, the only one with a significant atmosphere cloaking it from our curious eyes. Measurements of temperatures, densities, **cloud Particle sizes,** surface characteristics, and imagery of the surface are all incorporated in the instrument package.

**The science investigations, mission planning, and opportunities for groundbased support will be described.**