

Interplanetary Small Sat Conference

Taking Pictures in deep Space: ArgoMoon and LICIACube

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The year 2022 marked significant milestones in space exploration, with the successful launch of the Artemis-1 mission and the first planetary defense mission, DART. On board these missions were two 6U CubeSat satellites, ArgoMoon and LICIACube, equipped with high-resolution cameras designed to witness key moments of these missions.

ArgoMoon and LICIACube, two missions promoted by the Italian Space Agency and designed and operated by Argotec, were operated correctly in deep space and captured significant pictures of key phases of the mission, including more than 600 pictures of the aftermath of the impact of DART with Dimorphos. Both satellites utilized the Hawk-6 platform, a microsat developed by Argotec with technologies suitable for deep space missions.

The Hawk-6 platform incorporates advanced technologies such as radiation-hardened components, advanced solar cells, and a robust attitude control system, enabling the platform to withstand harsh conditions in deep space. Additionally, the platform has been designed to support a wide range of scientific payloads, making it an ideal choice for missions such as ArgoMoon and LICIACube.

The successful operation of ArgoMoon and LICIACube demonstrates the potential of small satellites to support deep space exploration providing additional science to big missions at a fraction of the cost. Additionally, the use of the Hawk-6 platform in these missions highlights the importance of developing specialized microsat technologies suitable for deep space missions.

As the development of microsat technologies continues to advance, we can expect to see more innovative solutions that enable us to explore the cosmos in new and exciting ways.