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Microgravity Experiments from Sub-Orbital to Orbital Platforms (3)

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DEVELOPING SMART PAYLOAD SERVICING MODULES FOR SUBORBITAL SPACE SERVICING

Abstract

This paper presents the development procedure of a smart generation of payload servicing modules for suborbital space servicing. This research is done as part of the progress done by the company Suborbitality for the development of the ANUBIS suborbital rocket which is mainly a suborbital servicing vehicle, its main mission is to deliver its payload into the designated altitude. The variety of payloads sent on-board of ANUBIS has pushed the design team to offer different payload servicing modules (PSM) to cover majority of the market needs. These PSMs were equipped with various subsystems to be able to introduce plenty of capabilities for the payloads to maximize the user experience and benefit of suborbital space launches.

In this paper the design process, state of the art, methodology and conclusion on the payload servicing modules is conducted. The discussion section involves the survey results done to customers to make sure the design is smart enough to cover their desires and aims.