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ELECTRONIC COMPONENTS FOR ANALOG EVA SPACE SUIT: DESIGN AND PERFORMANCE
ANALYSIS.

Abstract

Electronic components are vital to the functionality of space suits and must be able to perform reliably in harsh and challenging space environments. This paper presents a comprehensive design and performance analysis of electronic components for analog Extra-Vehicular Activity (EVA) space suits. EVA space suits are essential equipment for astronauts to perform spacewalks and other missions in space, and the electronic components play a critical role in maintaining astronaut safety and mission success. This study focuses on the selection, design, and evaluation of electronic components in analog EVA space suits that simulate actual space suits for training purposes. The electronic components used in these suits must be capable of withstanding extreme environmental conditions. This paper provides an overview of the different types of electronic components that can be used in analog EVA space suits, including temperature sensors, pressure sensors, oxygen sensors, carbon dioxide sensors and monitors, pulse sensors, communication systems, power systems, and display systems. The paper underscores the importance of reliability, durability, and performance in extreme conditions for electronic components used in analog EVA space suits to ensure the safety and well-being of the wearer. Overall, this paper provides valuable insights into the design and performance analysis of electronic components for analog EVA space suits and highlights the significance of meticulous component selection and evaluation for mission-critical applications.