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ANTHROPOMORPHIC 3D SCANNER FOR CORPORAL GROSS DETERMINATION IN MANNED PLANETARY MISSIONS

Abstract

This paper presents a proposal of research and development of a 3D Anthropomorphic Scanner for Corporal Gross determination in Planetary Missions.

Planetary Missions are the key for the humankind future. Long journeys, rough stays and dangerous environments are challenges to future astronauts. As that comes, they will need new technologies for health assessment. The measurement of bone loss, weight gain and percentage of corporal gross are important health indicators of crew conditions and mission safety.

A Scanner for Corporal Gross Determination has the function of measure the percentage of gross in a human body. That has being made using computational vision technology. However, that has been developed just for use on Earth.

This paper proposes a new development for the 3D Anthropomorphic Scanner for use in micro-gravity, Moon gravity and Mars gravity. The new development proposed is linked to algorithmic and mechanical changes in that device.

All in all, this proposal is a thriving new technology to provide best measurements devices for Manned Planetary Missions.