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TRLS FOR DESIGN-ENGINEERING OF TOMORROW

**Abstract**

Technology Readiness Levels (TRL) are a method of estimating technology maturity of Critical Technology Elements (CTE) of a program. They are determined during a Technology Readiness Assessment (TRA) that examines program concepts, technology requirements, and demonstrated technology capabilities. In this paper we use system analysis to examine differences and similarities of TRLs between human spaceflight and terrestrial architectural design practises. Scheduling, managing and controlling design is a complex task, resulting frequently costs over budget. The effective management of space technology and systems development is critical to future success in space exploration, development and discovery. The goal of this study is to benefit both terrestrial applications as well as future design-engineering processes of Cislunar Habitats and 3D printing Moon and Mars Habitats.