

Transcending Societal Issues for Space Exploration (12)  
Transcending Societal Issues for Space Exploration (1) (1)

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## CREATING A SELF-SUSTAINING HUMAN SPACEFLIGHT SECTOR IN THE UAE

### Abstract

The United Arab Emirates (UAE) is a relatively young country, at 49 years since its union, with a relatively young space program. Despite that, the country was able to launch several earth observation satellites in addition to a planetary mission to Mars that is set to enter the orbit of the planet in February 2021. By training young engineers at the hands of experts in the field of satellite development, the country was able to nurture the space sector enough to nourish the space industry locally allowing it to become self-sustaining. In order to diversify the UAE's space production, another field that would be useful for the UAE to be involved in is human space flight. While countries like the United States of America and Russia have excelled in the field and have been involved in it for durations longer than the UAE's existence, a study on how those countries built the bridge between terrestrial human health and space health sciences to create a thriving human space flight program would be a useful guide for the UAE on how to become a major global provider in the field. This paper studies steps that the UAE and other countries that are new to the field can take in order to excel in the field of human space flight in which it would be able to solve the biggest problems facing long duration human missions to destinations like Mars by looking at what other countries in the field have done in order to successfully transition into the human spaceflight realm. By studying where the UAE currently stands with its achievements in human spaceflight, including sending an Emirati astronaut to the International Space Station (ISS) and sending experiments to the ISS, a plan forward based on where the current gaps are and what steps need to be taken next will be studied as well.