Aerospace Art and STEM

Michelle Rouch
SAT IOC Member
Chair / AIAA Tucson Section
Michelle Rouch

Michelle Rouch is the Chair of the American Institute of Aeronautics and Astronautics (AIAA) Tucson Section.

Before joining AIAA in 2009, Rouch led K-12 activities in combining art and aviation history from 2002 to 2008, offering a unique learning experience.

She is a member of Society & Aerospace Technology (SAT) IOC, Founder & Co-chair of the Tucson-Chapter of International Association of Astronomical Artists, Artist Professional with American Society of Aviation Artists, public speaker, and recently became an Advisory Board Member for Higher Orbits.

Besides being an artist, her day job consumes already 31 years of her life in system engineering working for Department of Defense, overseeing major weapon systems. Rouch serves as a technical advisor in generating strategic information for MDA, Navy, Air Force, and the Army.
Artwork for Al Worden Apollo 15 Astronaut’s Next Book

- Established requirements up front
  - Quantity = 13
  - Time – CY2019

- Publisher
  - Secured Dimension 9”x7”

- Used Agile Methodology
  - Confirmed concept with customer and publisher
  - All 13 designs were created concurrently
  - Scalability and flexibility for a possible 9”x9”
  - Continuous customer feedback
  - Risk based each design, measuring its complexity
  - Rapid prototyping for the most complex designs
Art Project Implementation

- Deploy
- Scrum
- Prototype
- Concept
- Design
- Market Release

Agile
Rapid Development – Completed in 4 months
Photos from Al Worden’s Apollo 15 Mission

- Complex Design
- Time Consuming
- Created Concurrently

“Earthscape”

“Moonscape”
One of the most complex designs – “Al’s Catwalk”

- Customer requests
  - Page 3: “On the walkway at the top of the enormous rocket, I gaze to the ocean”
- Nearly 95% of the design needed to be created from scratch
- There was very little material available online
- Needed to pull a rabbit out of a hat
On the walkway at the top of the enormous rocket, I gaze to the ocean.
Last Artwork – “Spacewalk”

- Bounced nearly completed all 13 pieces of artwork with Al Worden in Huntsville, AL in July 2019
  - Reminiscing on the Mission
  - Seeing what was in front of him and behind him
  - Sharing his experience how he felt
  - Sharing detailed Spacewalk recollections
  - Offering artwork critique & corrections
- Resulting to recreated the design to be Bigger & Better and with more accuracy
Completed “Spacewalk” in Nov 2019

First Painting

Rapid Prototype Scrumming with Space Hipsters on FB

Final Painting (30” x 23”)