

MISSION: ASTRONAUT

EXPERIENCE OVERVIEW



FLYING FISH

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OVERALL EXPERIENCE:

Put on your spacesuit and get ready for your next challenge; *Mission: Astronaut* ventures into space and encourages visitors to learn about life as an astronaut with hands-on STEM challenges.

Each section challenges the visitor to use an astronaut's mindset to solve puzzles focusing on engineering, physics, mathematics, teamwork, and most importantly, fun! Solving each challenge lets the visitor collect badges to recognize their accomplishments.

The exhibition, mostly set in space, revolves around an explorable space station. After you've gone through training at Mission Control, climb into the capsule and blast off into space. Use your engineering skills to open up an airlock, and start exploring! Climb inside and discover the different modules and nodes housing experiments, crew quarters, life support systems, and more. Outside, you'll learn about what keeps a space station ticking for astronauts to stay safe.



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THE BIG IDEA:

Life in space is very different, and more challenging than life on Earth.

GOALS / OBJECTIVES:

- Visitors have fun!
- Visitors learn about life in space, what astronauts do, and about orbiters and space stations
- Visitors use teamwork and STEM principles to solve problems, just like an astronaut would on a real mission

TARGET AUDIENCE:

Kids (5-9) and families
Science centers

EXHIBITION SIZE:

3,500 - 4,500 sqft



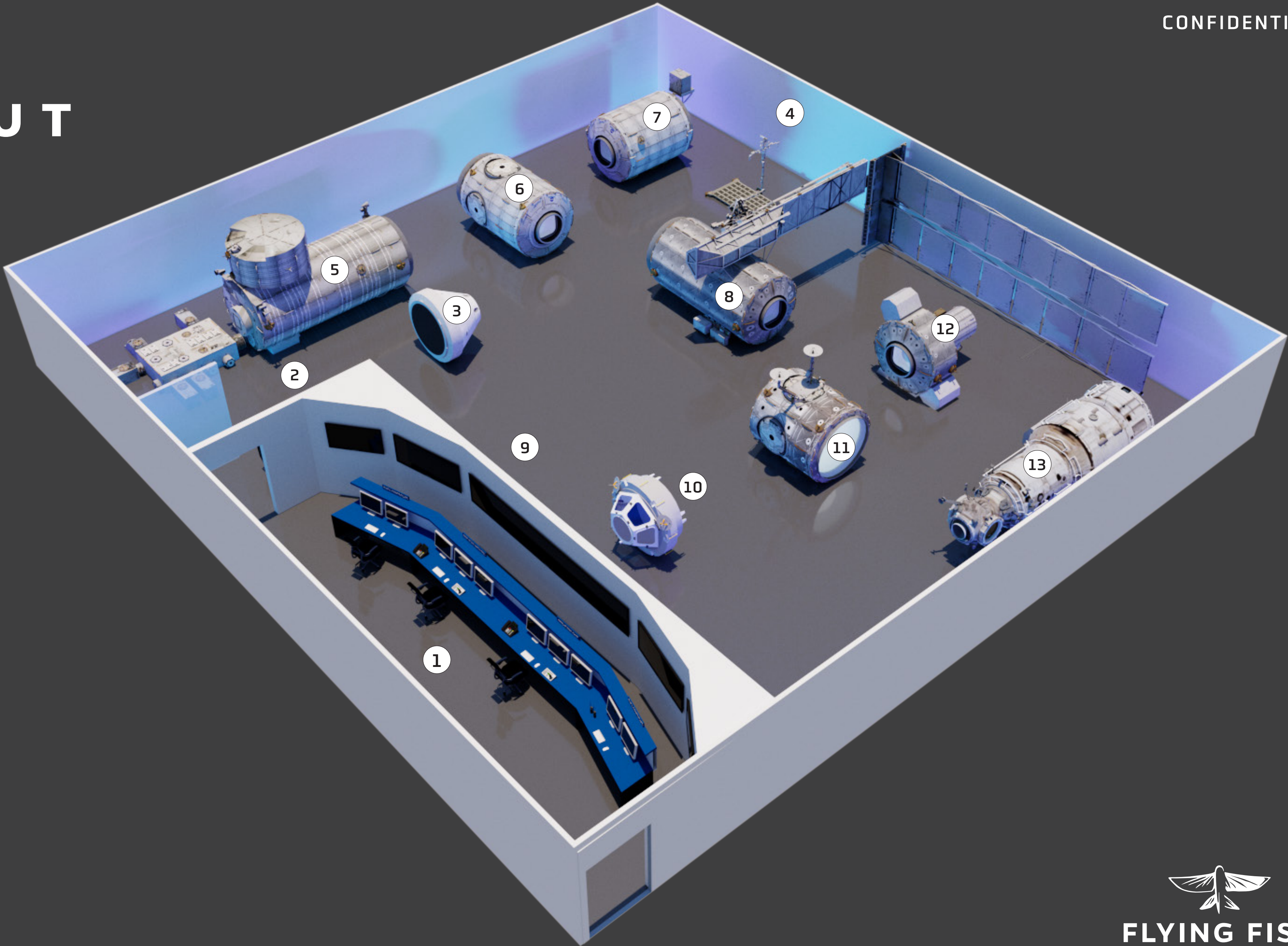
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EXHIBITION AREAS:

- 1 MISSION CONTROL
- 2 FLIGHT SIMULATOR
- 3 CAPSULE
- 4 AR SPACESUIT INTERACTIVE
- 5 EXPERIMENT MODULE
- 6 NODE 1 - CREW QUARTERS
- 7 RESEARCH
- 8 LABORATORY
- 9 PROJECTION SPACE
- 10 CUPOLA - OBSERVATION AREA
- 11 NODE 2 - CREW QUARTERS
- 12 AIRLOCK
- 13 SERVICE MODULE

STATION EXTERIOR:

- INTEGRATED TRUSS STRUCTURE
- MOBILE SERVICING SYSTEM
- ELECTRIC POWER SYSTEM EPS
- GUIDANCE, NAV AND CONTROL



MISSION CONTROL

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Astronauts and the teams working beside them use teamwork and incredible amounts of training and preparation to ensure a mission's success. Visitors are introduced to their mission here, and pick up their badge books. Visitors will train for their mission, and brush up on their engineering skills. They can even team up with other astronauts to pilot the shuttle. This area is themed to resemble a mission control station as well as a training center.



[LINK TO VIEW EXAMPLE](#)

NOTE: Monitors + Electronic components would be built into the walls, traveling with the exhibition.

SUBSECTIONS / CONCEPTS

Learn about your mission (astronaut training)
Be an engineer (build a tool to fix a faulty airlock and design a shuttle)
Work with astronauts to pilot the shuttle
[using walkie talkie and teamwork via 2-player touchscreens]

POTENTIAL INTERACTIVES / EXPERIENCES

Walkie Talkie with Shuttle Flight Deck
Engineer a tool that you'll use later to help you with challenges
Design your own shuttle and test how well it launches
Pick up your badge book and earn your first stamps

OPERATIONS CHIEF

DATA CONTROL



FLIGHT SIMULATOR

Astronauts train for their mission in the Flight Simulator. Pilot the capsule, learn about trajectories and orbits.

[LINK TO VIEW EXAMPLE](#)

[LINK TO VIEW EXAMPLE](#)

SPACE CAPSULE

Prepare to launch and dock the capsule on the ISS Docking Simulator interactive, using controls to manually pilot the capsule to the International Space Station.

[LINK TO VIEW EXAMPLE](#)



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SPACE STATION

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After preparing for their mission, astronauts will find themselves at the Space Station. This section can be broken into modules and nodes to fit a variety of venues. Here, astronauts will experience the basics of life in space, its beauty, and what space exploration can teach us.

As visitors explore each section of the station, they will be presented with a challenge to solve, as well as educational interpretation about how the station works, and what life in space is like. STEM integrations will be incorporated throughout.

Creativity, problem-solving, and teamwork will be encouraged at each challenge; successful astronauts will get a stamp in their mission badge book to take home with them.

The design intention is to create the elements to the space station as accurate as possible to relative scale – also with accessibility in mind.

SPACE STATION SUBSECTIONS / CONCEPTS

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- Life in space (Nodes, cargo block)
- Eating, exercise, bathroom, etc
- Supplies and resources in space
- Research in space (Experiment Module)
- Current studies
- Observation deck (Cupola)
- Exterior systems (Robotic Arm, Electrical Power System
- Guidance/Nav/Comms, Thermal Controls, Truss]

POTENTIAL INTERACTIVES / EXPERIENCES

- See real photos / video of space and Earth from the Observation Deck
- Design your own controlled space research study and see what happens
- Troubleshoot life support, communication, and power systems
- Master astronaut space life by cleaning up floating objects with a vacuum,
- Fix the airlock to enter the space station
- Complete your badge book



PROJECTION SPACE

Cinematic views of space will be projected onto internal walls,
Audio and lighting will be programmed alongside video and imagery,
In creating atmospheric thematic sequences. 30 - 60 mins loop.

EARTH FROM SPACE - NASA LIVE STREAM

Live video feed of Earth from the International Space Station (ISS) Cameras.

[LINK TO VIEW EXAMPLE](#)

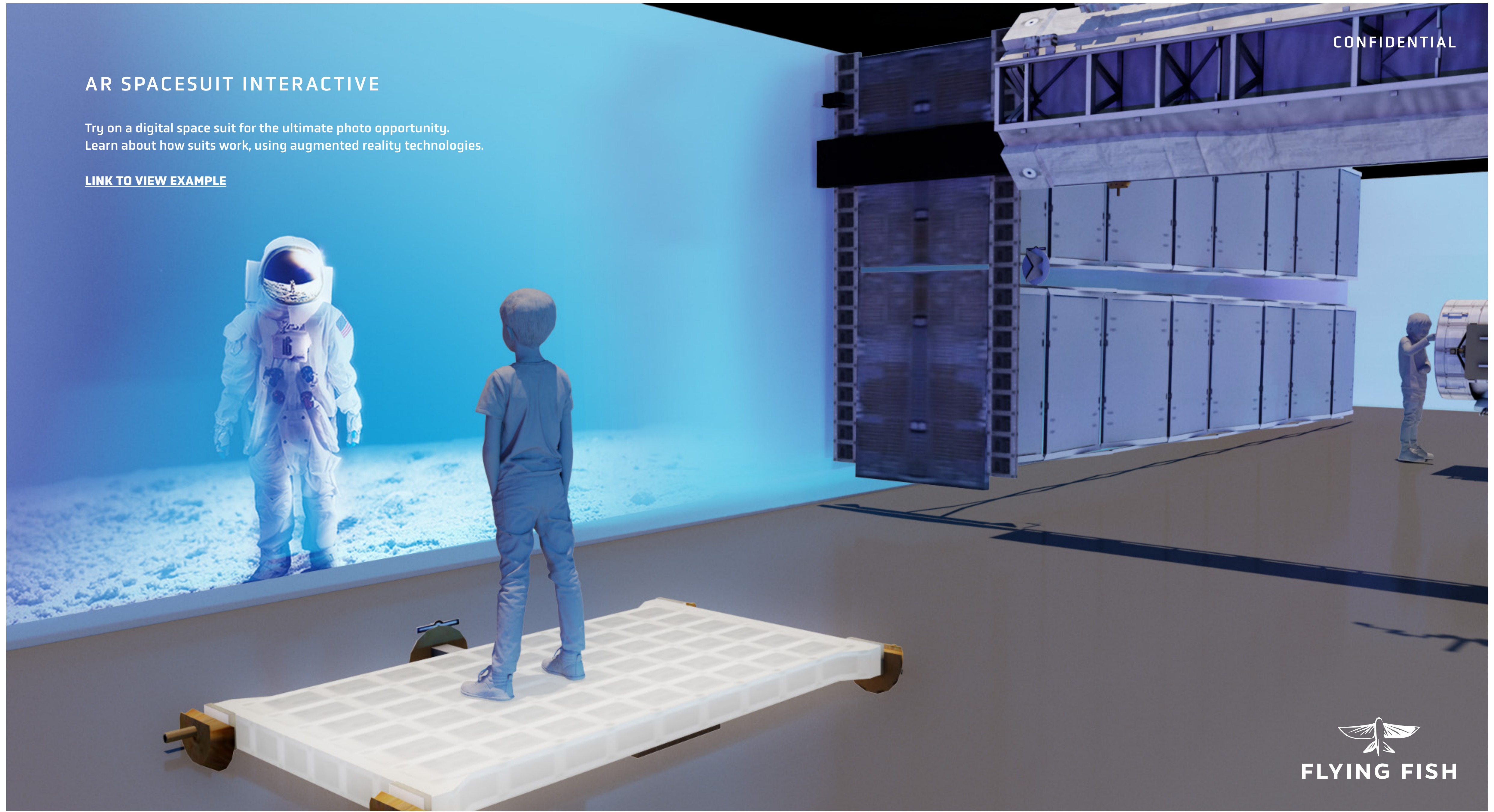


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AR SPACESUIT INTERACTIVE

Try on a digital space suit for the ultimate photo opportunity.
Learn about how suits work, using augmented reality technologies.

[LINK TO VIEW EXAMPLE](#)



BOOKINGS

Accepting reservations beginning Fall 2023.
The exhibition is developed, designed, produced,
and toured by Flying Fish.

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