

Jews in Space: The Tribe in Orbit

Girls Scouts of America – Badge Fulfillment Programs



The Center for Jewish History is offering a special experience badge for *Jews in Space* that will be available for the duration of the exhibition. Girl Scouts of America troops are invited to attend a curator-led tour of this exciting and innovative exhibit and will receive the badge upon completion of the tour. Please note that Advanced Registration is required through the <u>Group Visit Request Form</u> of the Lillian Goldman Reading Room. Girl Scouts of America are welcome to explore these programs free of charge.

#### **STEM Merit Badges**

The new *Jews in Space* exhibition at the Center for Jewish History is proud to fulfill several STEM merit badges through exhibition-related activities. Each activity fulfills one requirement per badge and provides methods and tools for merit-based learning. Please note that the Center **does not provide the program time or materials necessary for independent activities** outlined in merit badge requirements.

Scroll down for more details!

# **Daisies (Grades K-1)**



### What Robots Do | Robots in Space!

A robot is a machine that is programmed to act automatically. Robots do things we, as humans, can't or don't like to do. Robots can be super small to go into small spaces or be built to go places that are too hot or cold for us. They can even go to far away planets and send information back to scientists! Learn about the many things robots do, and work in teams, like engineers, to design a robot that solves an everyday problem.

- 1. Learn about robots
- 2. Find out what robots can do
- 3. Team up to design your own robots

When I've earned this badge, I will know about the many things robots can do and the steps engineers take to build a robot in teams.

### **Visit to the Center for Jewish History:**

- Explore our ground-breaking exhibition *Jews in Space: the Tribe in Orbit* in the David Berg Rare Book Room.
- Learn about unique robots and the inventors who designed them with space exploration in mind.

# **Brownies (Grades 2-3)**



### Inventor | Spaceflight and the Stars

Do you ever wonder what it takes to come up with a new kind of phone or a new way to power a light bulb? Would you like an invention that would help you tie your shoes faster or one to make elevators record your singing while you ride? In this badge, find out how inventors make stuff—and become an inventor yourself!

- 1. Warm up your inventor's mind
- 2. Find lots of ways to solve the same problem
- 3. Make a needs list
- 4. Solve a problem
- 5. Share your invention

When I've earned this badge, I'll know how to think like an inventor.

#### **Visit to the Center for Jewish History:**

- Explore our ground-breaking exhibition *Jews in Space: the Tribe in Orbit* in the David Berg Rare Book Room.
- Learn about different kinds of spacecraft designs, uses, capabilities, and features throughout the history of space travel.
- Create your own spaceship or device for navigating through the solar system.



## **Showcasing Robots**

After engineers build their robots, they show them to other engineers and enter them into challenges and competitions. Now that you have your robot prototype, it's time to create a presentation and share your design with others. After, learn about robotics teams and competitions and see a robot in action!

- 1. Create a presentation to share how you designed your robot
- 2. Tell others how you designed your robot
- 3. Learn about robotics competitions
- 4. Learn about robotics teams
- 5. See robots in action

Note: Unlike the other Robotics badges, these Steps include options. You may be able to complete multiple steps, particularly for Step Three through Step Five, at once.

When I've earned this badge, I will have shared my prototype and design process with other. I will see a robot in action and learn about robotics teams and competitions.

#### **Visit to the Center for Jewish History:**

- Explore our ground-breaking exhibition *Jews in Space: the Tribe in Orbit* in the David Berg Rare Book Room.
- Learn about the role of Robotics Engineers and their work in the field of Robot Systems and Technology.
- Learn about robotic applications outside the Earth's atmosphere and the unique challenges and designs that are faced by engineers.

## **Junior (Grades 4-5)**



#### Designing Robots | Robotics in Space

Robots are simple machines that run automatically, made of many different parts, each with its own important job to help the robot. Sometimes, engineers use biomimicry to design robots that look like or are inspired by humans, animals, and nature. Increasingly, engineers are able to create robots that continue to learn about their environment. Work in teams with your fellow Juniors to explore artificial intelligence (AI), then think about how technology and robotics can help the world. After, it's time to put it all together and design your own robot! Work like engineers to plan and build a prototype of your robot that solves a global problem. Test and share your robot prototype with other Juniors for ideas on how to make it even better.

- 1. Discover the future of robots
- 2. Determine your robot's expertise
- 3. Plan your robot
- 4. Create a prototype
- 5. Get feedback on your robot

When I've earned this badge, I will know how to plan, build, and share feedback like an engineer by creating a prototype of a robot that solves a global problem.

#### Visit to the Center for Jewish History:

- Explore our ground-breaking exhibition *Jews in Space: the Tribe in Orbit* in the David Berg Rare Book Room.
- Learn about the role of Robotics Engineers and their work in the field of Robot Systems and Technology.
- Learn about robotic applications outside the Earth's atmosphere and the unique challenges and designs that are faced by engineers.

# Senior (Grades 9-10)



#### Sky | Spaceflight and the Stars

The sky is a masterpiece. Every day it graces us with living art, whether through a glorious sunset, shifting cloud formations, or the stunning display of night stars. No wonder we take every opportunity to spend time outdoors. Our world is a stage, and the sky performs with beauty, wonder, and mystery.

- 1. Watch the skies
- 2. Investigate the science of the skies
- 3. Explore the connection between people and flight
- 4. Help clear sky pollution
- 5. Create sky art

When I've earned this badge, I'll understand the sky -- from science to stars to stories.

#### **Visit to the Center for Jewish History:**

- Explore our ground-breaking exhibition *Jews in Space: the Tribe in Orbit* in the David Berg Rare Book Room.
- Learn about how humans have studied the universe throughout history, from the invention of the astrolabe through the Hubble telescope.
- Learn about how the wonder of the stars influenced the development of such genres as Philosophy, Science Fiction and Popular Culture.