



**GSCCC MOXI Patch**

To earn this patch, please complete the following number of items from each section

	Discover	Connect	Take Action
Daisy	1	1	1
Brownie	2	1	1
Junior	2	2	1
Cadette	2	2	2
Senior	3	2	2
Ambassador	3	3	2

## DISCOVER

1. **Ask Questions:** All of the exhibits at MOXI are designed to be interacted with. This means you should play with them and explore what they do. Choose three exhibits that you interacted with. Write down three questions that each of them made you think about? (You should have 9 questions). Pick at least one of these questions that can be answered by collecting data or making observations (either with the exhibit or at home) and try to figure out the answer through experimenting.
2. **Learn to do something new:** Some of MOXI's exhibits let you try out new skills. For example,
  - You can learn to create sound effects in the Foley Studio by adding sound to a clip from a movie.
  - Check out what you can make in the Innovation Studio – you might be able to learn about circuits, 3D printing, Laser cutting, robotics, or something else.
  - In the light track, you can paint with light and create tessellating (repeating) patterns.
  - In the sound track, you can learn to play the Reactable, a musical instrument.
  - Learn to build an object that will be lifted up by the air (air tubes) or one that will survive a white water track (white water on the roof).

These are just a few examples. Pick something new to learn. Describe what you learned and take a photo of what you made.
3. **Discover your own interests:** What exhibits and activities appealed most to you? Think about the ones that you spent the most time at? What were you doing and learning.

## **CONNECT:**

1. **Connect with each other:** Collaborating with other people is important in science and engineering. Find an exhibit that allows for working with another person to create something. (e.g., Roll It, Light Patterns, Weather Orchestra, etc). Work with another person to create something.
  - a. As you both have ideas for what to create, describe how you made sure your ideas were heard
  - b. Describe how you made sure to listen to and consider the other person's ideas.
  
2. **Connect to your community:** The look out tower on the roof provides new ways for you to observe your community (with your eye, through a telescope, through a kaleidoscope, with a heat sensor, and with a speed sensor). How does looking at the community around MOXI allow you to see things you couldn't have seen just with your eyes?
  - a. Make a piece of art that shows the community around MOXI from two different ways of looking at it.
  - b. Make another piece of art that shows your own community (home, school, troop meeting place) from two different perspectives. (you may want to make your own periscope, use a kaleidoscope, use a heat sensor, look through rainbow glasses, or look at the space from high or low positions or any other way you think of).
  
3. **Connect to diverse populations:** MOXI is designed to be ADA accessible. This means that exhibits are designed so that people who have disabilities can use them. For example, one of the Foley Studio stations has a wheel chair ramp so that people who use wheelchairs can enter the booth and learn about sound effects.
  - a. Look around the museum and find at least 3 other ways that MOXI exhibits allow access to people with different physical disabilities (use a wheel chair, difficulty seeing, hearing, etc).
  - b. Look around the museum and find ways that MOXI is designed to be accessible to other differences in their guests (some may speak different language, ages may be very different, etc).
  - c. Using what you learned by observing MOXI in parts a and b, identify 1 change you could make at MOXI, at your school, at the place your Girl Scout troop meets, or someplace else to make it more accessible to diverse populations.

4. **Connect to women in science and engineering:** Learn about a women scientist or engineer. Make a poster or a skit about her to teach your troop what you learned about the woman scientist or engineer.
5. **Connect to your community.** The Innovation Wall at MOXI (first floor near entry) highlights local companies, groups, and individuals that are creating innovative products in Santa Barbara. Interview someone who works at one of the companies or groups or look up the group online. Learn more about this group and present what you learn to your troop or family.
  - a. Learn about how one of the scientists or engineers became interested in his or her work and the education necessary for his or her job.
  - b. Learn about what these scientists do at their job. What does a typical day look like?

**TAKE ACTION:**

1. Notice how the exhibits are designed to help people explore science and engineering through interacting with the materials. Design your own idea for an exhibit that would help people learn about science or engineering.
2. Pick one of the exhibits at MOXI and make a smaller version that you can share with your troop or class at school.
3. Design an activity to help another girl learn about science.