

# "Design It! Build It! Launch It!"

## The International Space Station Project

Want to do something really out of this world? Come join a team to send something into outer space. You can help design, build and launch your very own *MicroLab* science experiment aboard NASA's International Space Station!

## What's a MicroLab?

Picture a mini science lab. All the work you and your team do will fit into this NASA-regulated container the size of a Twinkie. Now picture a circuit board the size of a small pencil case. You program it. You give it commands. You adjust and modify it. The team's MicroLab, along with other experiments from U.S. high schools nationwide, will be launched on a spacecraft for delivery to the International Space Station. It will stay there for one month and during that time, you'll get data downloaded from an astronaut's laptop to collect, monitor and analyze.

### What Role Will I Have?

Be prepared to do cool stuff as part of an exciting girl-led science team. Your computer-controlled experiment will be designed and built by you. As a member of the **Design it! Build it! Launch it!** Team, you'll be placed in one of five areas:

- **Electrical**: Do you like to know how things work? You can build and solder circuit boards that drive and power the science experiment.
- Mechanical: Are you into sketching? You'll be making drafts and designing how the science experiment will fit in the MicroLab, then creating the mechanical designs to NASA and ISS specifications.
- Public Relations: Do you like telling stories? Bring your documenting skills! Digitally record your team's progress and capture every moment to share with online community networks.
- Software: Do you like apps? You don't need to be a computer whiz, but you will create simple programs that tell the experiment what to do while it's in the MicroLab up in space.
- **Testing**: Do you like seeing immediate results? You'll test all the parts of the project, including electrical, mechanical and software components, to ensure your MicroLab will be a success in outer space!



## Who can participate?

Any girl in grades 9–12. You don't even have to be a Girl Scout.

You'll meet other high-school girls from around O`ahu, plus connect with mentors and real scientists who will help you along the way.

## Who Will I Be Working With?

Your team will consist of up to 20 girls all working on the same experiment. They'll be just like you: high-school girls who are interested in science and space, and dedicated to teamwork and leadership.

Adults will also bring their expertise. Whether it's your favorite teacher or a professional scientist, your Project Advocate will support you through this historical project. Girl Scouts of Hawai'i representatives, who have completed official training for this project, will facilitate the program and be on hand for added guidance.

#### When is it?

Your team's MicroLab will be launched on a spacecraft in March 2013. As a member of the team, your time and commitment is an important part of your success in the program. Weekly workshops on Saturdays from September through November, with monthly meetings to follow, will help you and your teammates stay on track.

#### Where is it?

Workshops will be held at the Girl Scouts of Hawai'i offices at the Ala Moana Hotel. You'll also travel to various locations as you create your experiment.

#### Is there a fee?

The program fee is \$550 per girl. Financial assistance is available based on need. For more information or any questions, please contact Melissa Torres-Laing at (808) 675-5514 or at <a href="mailto:metorres-laing@girlscouts-hawaii.org">metorres-laing@girlscouts-hawaii.org</a>.

## How can I be part of the project?

The deadline to apply is **August 31, 2012**. You can download and print an application at <a href="https://www.girlscouts-hawaii.org">www.girlscouts-hawaii.org</a>, under Programs>Program Initiatives. If you are accepted, a Girl Scouts of Hawai'i representative will notify you. To learn more about the project, attend the Information Session on September 5, 2012. The Kick-Off Meeting will be held on September 8.

Our space station opportunity is made available by Valley Christian Schools (<a href="www.vcs.net">www.vcs.net</a>), the Quest Institute for Quality Education (<a href="www.nanoracks.com">www.thequestinstitute.com</a>) and NanoRacks, LLC (<a href="www.nanoracks.com">www.nanoracks.com</a>) via its Space Act Agreement with NASA's U.S. National Lab.