SWENext DesignLab
Community Engagement Challenge
The Society of Women Engineers (SWE), founded in 1950, is the world’s largest advocate and catalyst for change for women in engineering and technology. The not-for-profit educational and service organization is the driving force that establishes engineering as a highly desirable career aspiration for women.

To ensure SWE members reach their full potential as engineers and leaders, the Society offers unique opportunities to network, provides professional development, shapes public policy and provides recognition for the life-changing contributions and achievements of women engineers. As a champion of diversity, SWE empowers women to succeed and advance in their personal and professional lives.

For more information about the Society, please visit [www.swe.org](http://www.swe.org)

**SWENext** is a way to become part of the Society of Women Engineers as a student through the age of 18. Become part of SWE and #BeThatEngineer!

**SWENext** Clubs are a way to connect with SWE members and other SWENexters in your area. Your **SWENext** club can be any size with students in grades K-12.

Learn more about **SWENext** membership, **SWENext** Clubs, access to scholarships and awards, leadership, community, and download our flyers at, [www.swenext.swe.org](http://www.swenext.swe.org)
WE Local is a Society of Women Engineers (SWE) program that was developed to bring the excitement and energy of SWE's annual conference — on a smaller scale — to our members' backyards around the globe through local conferences. WE Local brings together participants in all stages of their professional journeys.

SWENext DesignLab is an outreach event taking place at three WE Local conferences every year. Outreach events are an important part of programming at the Society of Women Engineers. In order to foster a diverse engineering workplace in the future, we must inspire young generations today to pursue their interests in STEM. Find out more here: SWENextDesignLab.
Challenge

High School *team* to design a *service project* that addresses a specific environmental or economic community need using a hands-on engineering *activity*. The *activity* and *service project* must engage local elementary and/or middle school *participants* using a proposed $1,000 budget.
Benefits of Participation

- Engagement with Women in Engineering
- Community Engagement Opportunity
- Invitation to DesignLab
- Grant Proposal Writing Experience
- Project Implementation Experience
- Leadership Experience
- Exposure to Bias Literacy Training
- Role Model Training
- Professional Presentation Experience
Participation Requirements

- **Team** must consist of high school students and one **Faculty Advocate**. At least 50% of the **Team** and presentation group at DesignLab must identify as female.

- Recommended 5-15 students per **Team**. Any team outside that recommendation is subject to approval.

- The entire **Team** is invited to attend their designated DesignLab at WE Local, however 1-5 student(s) must be able to present the **Team Design Outline**. No registration fee for attendance. Travel expenses are not covered.

- **Team** must attend one orientation webinar session provided by SWE or watch the online recording.

- **Team** must involve their assigned **SWE Advisor** in some capacity.

- The projected **Participants** engaged by the **Team** must be middle and/or elementary school students.

- Winning **Teams** must agree to implement their **Activity and Service Project** by the deadline listed [here](#) or forfeit the prize.
Key Objectives

★ Design a Service Project that addresses a specific economic or environmental community need using engineering.

★ Outline a proposal to engage elementary and/or middle school students in a way that will introduce them to engineering through a hands-on Activity followed by a Service Project to test the Participant’s designs.

★ Demonstrate plans to engage SWE professional and/or collegiate members in Activity and/or Service Project.

★ In addition, the Team should,
  ▪ Introduce the Participants to women in engineering.
  ▪ Familiarize the Participants with SWE and SWENext.
  ▪ Show why it is important for women to be in the field by clearly demonstrating key facts to Participants (e.g. only 13% of engineers are women).
  ▪ Be mindful of bias literacy research and if possible, include some aspect of this training in the Activity.
Proposal Example

★ **Team** aims to address issues with littering at local park.
★ **Team** (working with SWE Advisor) designs an Activity where local elementary school **Participants** build mechanical arms to help pick up litter in park.
★ **Team and Participants** go out to park for their **Service Project** to test out their designs and pick up litter in local park.
Contact Info

Markita Riley
Society of Women Engineers Headquarters
Student Programs Coordinator
markita.riley@swe.org
**Glossary**

- **SWE**: Society of Women Engineers, organization designed to empower women to achieve full potential in careers as engineers and leaders, expand the image of the engineering and technology professions as a positive force in improving the quality of life, and demonstrate the value of diversity and inclusion.

- **SWENext**: A way to become part of the Society of Women Engineers as a student through the age of 18.

- **SWENext Clubs**: A way to connect with SWE members and other SWENexters in your area. Your SWENext club can be any size with students in grades K-12.

- **WE Local**: WE Local is a Society of Women Engineers (SWE) program that was developed to bring the excitement and energy of SWE’s annual conference - on a smaller scale - to our members' backyards around the globe through local conferences.

- **DesignLab**: SWENext DesignLab is a student programs event taking place at three WE Local conferences in 2019 - Baltimore, St. Louis and Denver.

- **Faculty Advocate**: Faculty member at the high school that is able to support the Team. Can be parent, troop leader, team adult coach.

- **SWE Advisor**: Society of Women Engineers adult or collegiate member that will serve in an advisory role to the team. SWE Advisor will be assigned once Entry Proposal is received.

- **Team**: High school students designing Activity and Service Project. Recommended 5-15 students per team.

- **Presentation Team**: 1-5 students from Team that will present 5 minute Design Outline presentation.

- **Participants**: Middle and/or Elementary school students the Activity and Service Project is designed to impact and engage.

- **Activity**: Hands-on activity that will engage the Participants in engineering.

- **Service Project**: Going out into the community and testing out designs from the hands-on Activity.

- **DesignLab Community Engagement Challenge Proposal Brief**: Overview of Challenge requirements and instructions.

- **Entry Proposal**: Basic initial outline of the needs in community and ideas of how the Team can address them. Must submit to be entered into the Challenge and be assigned SWE Advisor.

- **Design Outline**: Outline of Service Project and Activity proposal. Should provide all details of what the project aims to do and how the Team will accomplish these goals. Must submit to be considered to present at DesignLab.