# UNION GROVE BRONCOS

# SOCIETY OF Women Engineers

# **Presenter Introduction**

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## About SWE

## SWE Mission:

Empower women to achieve their 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.



# **Society of Women Engineers**



## Heidi Balistreri – Vice President for Outreach

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Heidi

**SWE-WI activities** 



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The Power of Introverts in a World That Can't Stop Talking

SUSAN CAIN

Spring Forward

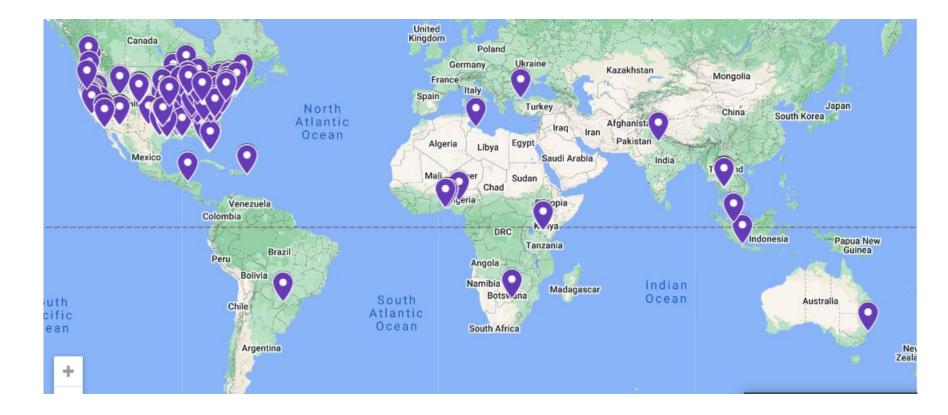




# 

- SWENext is a way for girls to become a part of the SWE engineering and technology community as students **through the age of 13 to 18**.
- SWENext is free to join and provides students access to programs, mentors, and resources designed to develop leadership skills and selfconfidence to #BeThatEngineer.
- Although our program focuses on girls, all students are encouraged to join.





# SWE Next

## WHAT'S AVAILABLE FROM SWENEXT?

- STEM Events
- Awards
- Scholarships
- Leadership Training
- College Preparation
- Mentoring
- STEM Outreach

- Socializing
- Networking
- Activities
- Newsletter
- Guest Speakers
- Field Trips
- Skills Development

# How to Get Started

## https://swe.org/k-12-outreach/swenext-clubs/



# OMS CUISSO CUIDE

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# Checklist

Here is a checklist to help you keep track of everything that is necessary to build an official SWENext club!

- Find a SWENext Counselor and Club Advisor
- Get your club approved by your school/ organization
  - Register your club on the official SWE website
- Have each club member join SWENext
- ) Form club goals
- Build your leadership team
- Host your first meeting
- Have fun!

#### 2<sup>nd</sup> place in Recruitment Challenge

- \$75 Online Gift Card
- Social Media Exposure

# OMS CIOSOG GIOR

# Adult Leaders Adult Leaders

SWENext Clubs are required to have an active SWE member (either a Professional, Collegiate, Global Ambassador, or K-12 Educator member) to act as a SWENext Counselor. Though not required by SWE, clubs are encouraged to also have a Club Advisor (e.g. K-12 Educator, Boy and Girls Club Counselor, etc). Roles and responsibilities for each position are highlighted below.

### SWENext Counselor

- Liaison to SWE
- Provides support when needed for events and activities
- Answers any questions regarding SWE's processes and mission
- Ensures club is upholding SWE principles

### **Club Advisor**

- Liaison to school or organization
  administration
- Responsible for maintaining safety and youth protection during all activities
- Acts as main point of contact for SWENext members on a day-to-day basis
- Ensures club is upholding school/ organization bylaws



# **Sales Pitch**

To start a club, your school or organization may first ask you to pitch SWENext to an administrative board or a similar group as part of an approval process. Don't fear! Here are some tips and tricks for putting together an effective sales pitch!

## **Outline Talking Points**

- What will your peers, school/organization, and community gain from a SWENext club? What will your goals be?
- How is a SWENext club a new club in your area? How is it unique from other clubs?
- What is your plan once the club has been approved? How will you handle recruitment?

# New Club Guide Official Registration

#### **Register Your Club with Your School/Organization**

Please take caution to ensure you are taking the necessary steps to register your club with your individual school or organization. Your Club Advisor should be able to help you with this process.

#### **Register Your Club with SWE**

To register your club with SWE, you must have an active SWE member as your SWENext Counselor. Try connecting with your local SWE Section, or reach out to **swenextclubs@swe.org** to find a SWE member to serve as your SWENext Counselor! Otherwise, K-12 Educators can become SWE members through the SWE Educator Mentor discount at:

https://swe.org/membership/k-12-educator-membership/ \$20 per year

Once you find a SWENext Counselor, register your club for free at:

https://swe.org/k-12-outreach/swenext/swenext-clubs/swenext-club-registration-form/



## **Register Individually to Join SWENext**

Each of your club members must also individually register as a member of SWENext for free here:

Under 13 years old: http://marketing.swe.org/l/858553/2020-08-11/3z2z9

13 and older: http://marketing.swe.org/l/858553/2020-07-27/2rstw

Have your members register at your first meeting! Your club should also create a roster for your members. As new members join, continue to update your roster and remind members to register online.



## Creating Club Goals

What is your club focus? What will unite you? Take some time to work together to create your club's goals. Here are a couple of ideas to get your club started. Events can be in-person or virtual!



#### Outreach

How can you help build a brighter future....starting with your own community?

- Host a STEM day for younger students!
- Volunteer at local STEM events!
- Visit and speak with local elementary and middle schools!



#### **Professional Mentorship**

How can you help club members prepare for future education and career paths?

- Host a Q&A panel with a SWE collegiate section!
- Invite women from local companies to visit and speak about their experiences for a career day!
- Work with teachers to lead a workshop on resumes, essay writing, or interview skills!



#### Skill Building

How can you encourage club members to explore different aspects of STEM?

- Begin each meeting with a STEM activity!
- Take part in a STEM competition!
- Work together on submissions for the SWENext awards and competitions!



# Leadership Team

Forming a leadership team is important to delegate responsibilities when planning events and activities. SWE does not require a SWENext section to have specific positions, but here are some suggestions to get your club started:

#### President

- Plans and runs club meetings with the Vice President
- Communicates with SWENext Counselor and Club Advisor
- Checks to make sure leadership team members are fulfilling duties

#### Vice President

- Plans and runs club meetings with the president
- Supports president when necessary
- Keeps track of club membership



#### Treasurer

- Manages funds
- Arranges fundraisers and works with Club Advisor to apply to grants

#### Secretary

- Maintains meeting minutes
- Sends members weekly updates and reminders via email
- Works with SWE Liason and Outreach director to promote community events and find contacts for SWENext mentorship events

### SWE Liason

- Responsible for maintaining communication with local SWE section
- Main point of contact for SWE contacts when helping with events

### **Outreach Director**

- Leads outreach events
- Responsible for event logistics



# Meetings

How will you keep club members actively engaged in building a SWENext community during meetings? How will you keep track of responsibilities and planning for events? Here are some suggestions for tools and activities for club meetings!

#### Organization

- Record meeting attendance
- · Write meeting minutes
- Review a meeting agenda at the beginning of the meeting to help stay on track when planning an event
- Discuss current and upcoming events

### **Community Building**

- Start with an icebreaker game during your first few meetings to learn the names of new members
- Start a meeting once a month with a teamwork challenge. This helps build communication skills as well as helps members learn about one another's strengths

#### Have Fun!

- Host a potluck lunch or ice cream party!
- Find a cute craft or awesome project to build!
- Rep your SWENext pride by going to a school or organization event together as a club!



# Fundraising

Have an awesome event your club wants to plan or an activity your club would like to participate in? Are you in need of money? There are many ways you can work to earn money for your club.

Please take the necessary steps to gain approval from your school or organization before moving forward with these funding opportunities.

#### **Funding Through SWE**

- SWE Program Development Grants
  - Funds range from \$250 \$5,000 based on the application and needs
  - The event must occur 45 days after the PDG application submission
  - Work with your SWENext Counselor and their SWE Section on the application.

https://swe.org/support-swe/program-development-grants/

- SWENext Club Competitions and Other Challenges
  - Some club competitions have a monetary value donated to the winning club. Stay tuned into the SWENext newsletters and website to learn what competitions are coming next!



#### **Funding Through Other Organizations**

- McCarthey Dressman Education Foundation\*
  - · Application must be filled out by the SWENext Counselor or Club Advisor
  - Submissions accepted between January 15th and April 15th
- Elkhart Education Foundation\*
  - · Application must be filled out by the SWENext Counselor or Club Advisor
  - Submissions are due February 1st

#### Fundraising

- Local Restaurant Proceed Nights
- Bake Sales and raffles
- Selling club merch



# New Club Guide Hosting STEM Events

How can you bring a positive impact to your community? Here are some ideas for outreach events that your club can organize!

#### **STEM Saturday**

- · Invite local elementary or middle school students
- Pick a theme and host 2-3 different STEM activities based on the theme

#### Host a Hackathon

- · Determine a coding challenge and coding language
- · Lead a preliminary workshop to attendees
- Guide teams of middle school students through a small-scale hackathon

#### **Organize an Innovation Fair**

- Ask local companies, universities, SWE sections, school clubs, and nonprofit organizations to bring a small STEM-based activity or demonstration to your Fair
- · Advertise the event to your community
- Design workshops to host throughout the day to help educate your community on the value of STEM as a career



# Mentorship Activities

#### **Speed Mentoring with Collegiate SWE Members**

- Reach out to a local collegiate SWE section (most collegiate sections will have individual website for their sections with contact information!)
- Similar to a "speed dating" activity, have SWE members sit in a circle and club members rotate to a new SWE member every 5-7 minutes
- This will give club members the opportunity to ask any questions they may have about the college process or different majors

#### **Career Day with Professionals in STEM**

- Invite parents and reach out to local businesses to invite women in professional fields to come speak about their careers
- Ask each professional to either give a small presentation about his/her company or host a Q&A panel

#### Take a Tour

 Reach out to local universities, businesses, or organizations and ask if your club can take a tour! Is there a cool science museum or an aquarium near you? See if they will take you behind the scenes to see the inner workings of the buildings and systems.





# Table of Contents

Looking for things to do with your SWENext Club? Want to host events but don't know where to start? From idea creation to execution, this guide will help you and your club plan a successful event whether for outreach, college/career preparation, or community building!

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# Club Activity Guide Creating Your Event



Whether learning a skill, team building, or helping your community, taking the time to think through and create an event presents a fun and rewarding challenge to clubs.

In order for events to be successful, they require a level of planning and preparation. To the left is a simplified process to use when creating events. The details of this process will be explained in following pages.

This list should not necessarily be followed linearly. Many steps will need to occur simultaneously.

Not all details included in this guide will pertain to every type of event, so be sure to use your best judgement about what needs to happen for your event to work!

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# **Club Activity Guide**

# Events: Career/College Prep

### Collegiate

- Q&A Panel
- Majors fair (find students from various universities to come and represent their majors)
- Speed mentoring
- College tour / visit
- Participate in a local SWE section's general body meeting
- Have volunteers lead a fun STEM activity or team building exercise

#### Professional

- Career day or monthly career talks
- Ask a school counselor or teacher to give a workshop on writing resumes or the college application process
- Company tour / visit
- Workshops that teach a fun or professional skill
- Virtual discussions with women across all fields (STEM and non-STEM!)



#### **College Applications**

- If you could tell your past self anything, what would it be?
- What were your priorities when applying to college?
- What is something no one tells you when applying to college?
- How do I know that a school is the right one for me?
- What did you do to prepare for college?
- How can I find scholarships?
- What is the best way to organize my time when applying to college?
- What are some options that are alternatives to a traditional college path? (gap year, service academies, etc)

#### **College Experiences**

- What is your favorite part of being a student at [University]
- Why did you choose your major?
- Why did you choose [University]?
- What are you involved with at [University]?
- Did you ever work / study abroad / do research?
- What has been your favorite class so far?
- Where can I go to find out more information about [University]?
- What are the biggest differences between high school and college?
- What influenced you in high school to become who you are?



#### **Career Preparation**

- What did you do in high school/ college to help you understand your career goals?
- What is your engineering field? What are potential jobs in that field?
- How did you know you wanted to be an engineer?
- How did or didn't your major lead you to your career?
- What is your field and how has STEM played a role in its development?
- How does your career incorporate multiple fields? How does it incorporate non-STEM fields?

#### Internships / Co-ops

- What is the difference between an internship and co-op?
- How do you find work opportunities while in college?
- What are the benefits of taking part in these opportunities when it comes to finding a professional career?
- What is the best way to prepare my resume and prepare for potential interviews?
- What is a career fair? When should I start going to career fairs? What is the benefit of going to career fairs?



#### Mentorship / Resources

- Who can I go to for advice and resources?
- How have mentors played a role in your life?
- What are the benefits of finding mentors?
- What are some qualities / factors to consider when looking for a mentor?
- How can I make the most of a mentorship as a mentee?

#### **SWE Experience**

- What is your favorite part about SWE?
- What is your favorite SWE memory?
- Why did you join SWE? How does it benefit your career/ college experience?
- How do you help support SWE's mission?



# Events: Outreach

#### **STEM Events**

How can you share your passion for STEM with your community? Here are some ideas to get you started!

- Visit a local school to talk about STEM or lead a demonstration
- Volunteer at a local nonprofit organization's summer STEM camp or weekend workshop
- Host a workshop or YouTube video series teaching a new skill
- Run a social media page highlighting fun STEM facts and activities
- Help build a garden or recycling program at your school to help with sustainability efforts
- Organize a hackathon or other competition

#### Volunteering

Helping your community through SWENext does not have to involve STEM! Check out some of these ideas to see other ways to impact your community.

- · Host a food, clothing, or disaster relief drive
- Raise money for a local nonprofit organization or cause
- Volunteer with a soup kitchen, battered women's shelter, nursing home, animal shelter, or Special Olympics

# Events: Team Building

#### Social Events

Sometimes the best activities are ones that let us relax and have fun!

- Plan a holiday potluck and celebrate together with good food. (If club members are from different cultures, ask for members to share a cultural dish of their choice!)
- Organize a study break during finals week with snacks and activities like arts and crafts or facials.
- Does your club enjoy the outdoors? Plan a picnic, hike, or maybe even go canoeing!
- Highlight a SWENexter of the Week and celebrate one another.
- Introduce your pets over a video call!

#### **Teamwork Activities**

From classic icebreaker games to building challenges, teamwork activities can teach members more about themselves and other club members!

- Is there a skill everyone wants to learn? Maybe a programming language or basic circuits? Have a "skill of the month" where SWENexters take turns to teach the club, or have members research a STEM field they are interested and present to the club!
- Although sometimes cheesy, simple activities like making spaghetti towers aid in learning communication skills. Start each meeting off with a quick icebreaker or challenge!
- Work with your school's science teachers to do a large lab activity.
  Exploding pumpkins is always a fun way to kick off holidays!

# Literacy

## **ENGINEERS DO SUPER THINGS ALL THE TIME!** FOLLOW THE EXCITING ADVENTURES OF CONSTANCE AND NANO ...







## constanceandnano.swe.org



**Broncos Club Goals** 



- •STEM Outreach
- Diverse and Inclusive Environment
- Field Trips
- Speakers
- •STEM Career Awareness







- Meeting led by President/Vice President
- Tuesday study hall for 30 minutes
  - Avoid schedule conflict with athletics and activities after school
  - Advisor's Prep Period
- Leadership meetings
  - Work on planning future meetings
  - Work on goals and project agendas
- All member meetings
  - Idea generation and feedback
  - Teams formed based on tasks or projects



# Leadership Team



- Explained Jobs and Duties
- Held anonymous elections via Advisor
- Leadership positions announced at all member meeting
- Reviewed duties and shared ideas/vision
- Created goals
- Created project teams
  - Developed task oriented teams based on goals
  - Meet when necessary



- Won 2<sup>nd</sup> place recruitment award for 17 new students.
- Posters
- Word of mouth
- Diverse student friendly language
- Social Media
- Lunch room TVs
- Open House
- Teacher discussions with engineering students







- Instagram
- School Twitter/Facebook
- Posters
- National Guard website
- Competitions
  - Seaperch underwater ROV
  - Cardboard Boat Races
- SWE National social media



## **Guest Speakers**



#### Previously

- Types of Engineering Speakers
  - Aerospace Engineer
  - STEM jobs in the Army National Guard

- Engineer Visits
  - Civil
  - Mechanical
  - Biomedical
- Parents who are engineers
- Recent members now in college
- **Day of STEM** throughout school (STEM Forward)







# **Field Trips**



- College/University Visits
  - MSOE
  - Sponsored by MSOE SWE chapter
  - Coordinated by club treasurer
- Businesses
  - SC Johnson
  - Parent companies/workplaces
- Six Flags
  - STEM Day
  - Reward for meeting attendance and participation









#### Needs

• Funding for buses, lunches, STEM supplies, competition fees, awards, t-shirts, etc.

- Corporate Sponsors
  - American Metalcraft, Coleman Tool, First Call HVAC, BSW Electric.
  - Army National Guard Marketing Agreement
  - Need more . . .
- Donations
- Custom Sticker created, manufactured, sold
- 3D printed pancake breakfast
- ?







#### Previously

- Robotics Demonstration at Elementary School
- Open House

- STEM Day at Elementary Schools
- Adopt a classroom
- Inside School STEM
  - Open STEM Speakers to school
  - Open field trips to school at large









#### Previously

- Leader Development Course
- Quick STEM Competitions at normal meetings

- Six Flags
- Field Trips
  - University
  - Businesses
- Hosting regional science fair (long term goal)



# National Guard Support



- Marketing Agreement
- Leadership Development Course
- Self Defense Course
- Transportation
- College Funding Advice
- Free Banners, Shirts, etc.







#### Only non-soldier team in history to complete Obstacle 6!





# **Skills Competitions**



- Seaperch underwater remotely operated vehicles
- Skills USA
  - Additive Manufacturing
  - Engineering Technology/Design

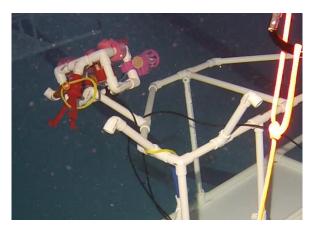




Seaperch



- Underwater Remotely Operated Vehicles
- Took 1<sup>st</sup> and 2<sup>nd</sup> Places at Regional Tournament
- Both teams qualified for International Tournament
- Presented project for judges, live streamed globally
- One team finished 8<sup>th</sup> in the world, the other 36<sup>th</sup>.
- Featured on local TV and newspapers













#### THE INTERNATIONAL SEAPERCH CHALLENGE



## QUESTIONS



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