DISCOVER ENGINEERING

Teaching Engineering

February 4, 2026

Presenter:

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TEACHING ENGINEERING WEBINAR

Getting Started

- This **webinar is being recorded** and will be posted on DiscoverE.org. We will email the link to you one week after the webinar.

- **Have questions?** Type your question in the "Question" space on your control panel.

Who are you?

How do you support students?

What ages of students do you support?

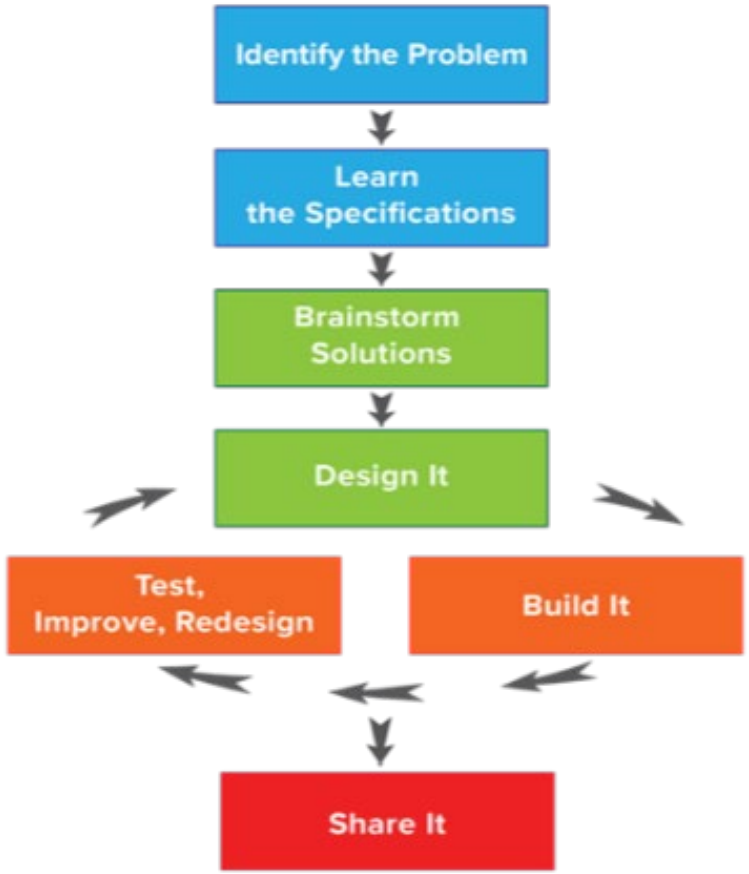
TEACHING ENGINEERING

Today's Agenda

- Overview of Engineering Design Process
- Hands-on Engineering Activity!

  Controlling Sound
- Teach Engineering Resources
- DiscoverE Resources
- Q&A

Engineering Design Process



Problem: What problem am I solving

Specs:? What resources do I have? What's the budget? How much time do I have? Who's on my team? Who's my client? How will success be measured? What are my constraints?

Brainstorm: What do I know I already know? What do I need to learn? What materials do I have? What have others done?

Design/Build/Test: What idea do I want to try first? Did it work like I thought it would? What didn't work? What can I improve?

Share: What worked, what didn't? What would you do differently? What are your favorite features. What did you like about other teams' designs?

Who is DiscoverE?

We are the “E” in STEM

We support educators and volunteers to:

- Build Skills and Confidence
- Increase Interest and Knowledge
- Expand Opportunities

DISCOVER ENGINEERS WEEK®

DISCOVER GIRL DAY™

FUTURE CITY COMPETITION®

DISCOVER CHATS WITH CHANGE MAKERS

WORLD ENGINEERING DAY FOR SUSTAINABLE DEVELOPMENT

Resources

- 170 STEM Activities
  - Leader Notes
  - Student Instructions
  - Challenge Videos
- Career Exploration
- Leader Training
- Outreach Grants

Formula for Success

Share positive engineering messages

+

Do Hands-on Activities & Active Facilitation

+

Support Interactions with STEM Role Models

= STEM Positive Students

Keys to Building a Student's STEM Identity

- Increase their interest
- Nurture curiosity with a positive attitude
- Help them see the value in STEM and how it aligns with their values and goals
- Build their confidence in their STEM skills
- Provide strong support networks
- Help them feel a sense of belonging

Finding STEM Volunteers

- Parents, neighbors, former students,
- Local Engineering Societies (SWE, ASCE, IEEE, ASME , CIE, etc)
- Local universities
- Local engineering firms

DISCOVER ENGINEERS WEEK®

Goal: Celebrate engineers and inspire students

Ask: Volunteers and educators engage students & celebrate the work of engineers

Resources:
STEM Activities
Training
Invite An Engineer Guide
Planning Guide
Certificates
Social Media Posts & Graphics

DiscoverE.org/EngineersWeek

DISCOVER E GIRL DAY™

Goal: Inspire girls to explore engineering

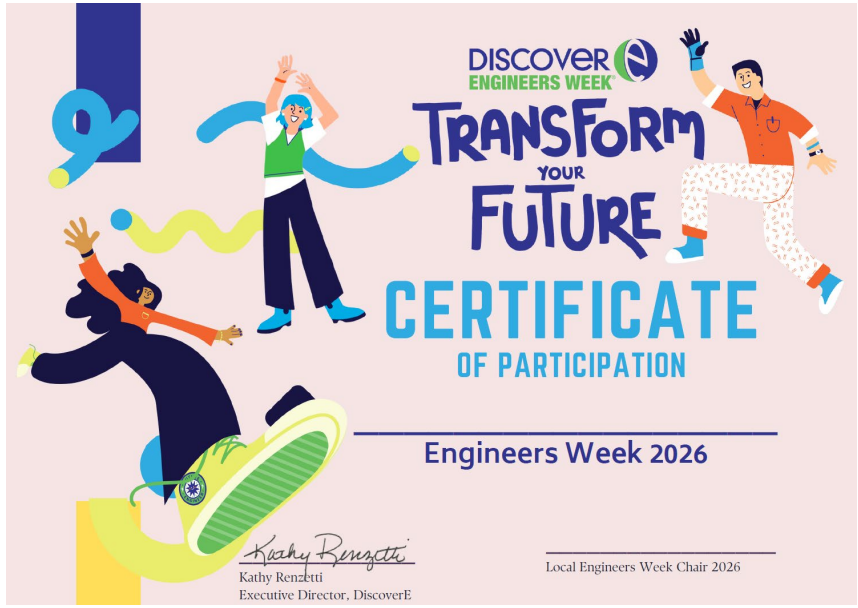
Ask: Engage girls in engineering – year round

Resources: Girl Day Planning Guide
Stickers
STEM Activities

DiscoverE.org/GirlDay

FREE Downloadable Resources

- Logos
- Ads
- Graphics
- Certificates
- Bookmarks
- ZOOM background
- Sample posts
- Customizable Language
- Spanish versions!

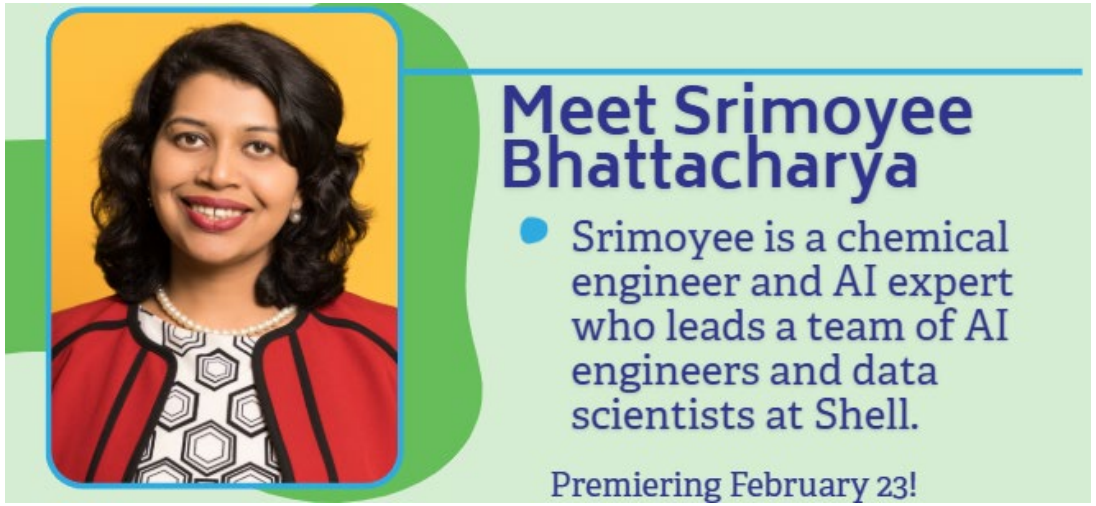


DiscoverE.org/downloadable-resources

DISCOVER E
CHATS WITH CHANGE MAKERS

- Student host interviews engineers and technicians
- 45+ episodes available to stream
- Meet two new role models!
  - **Jan 26:** Robert Schomp, water resources engineer
  - **Feb 23:** Srimoyee Bhattacharya, chemical engineer & AI expert

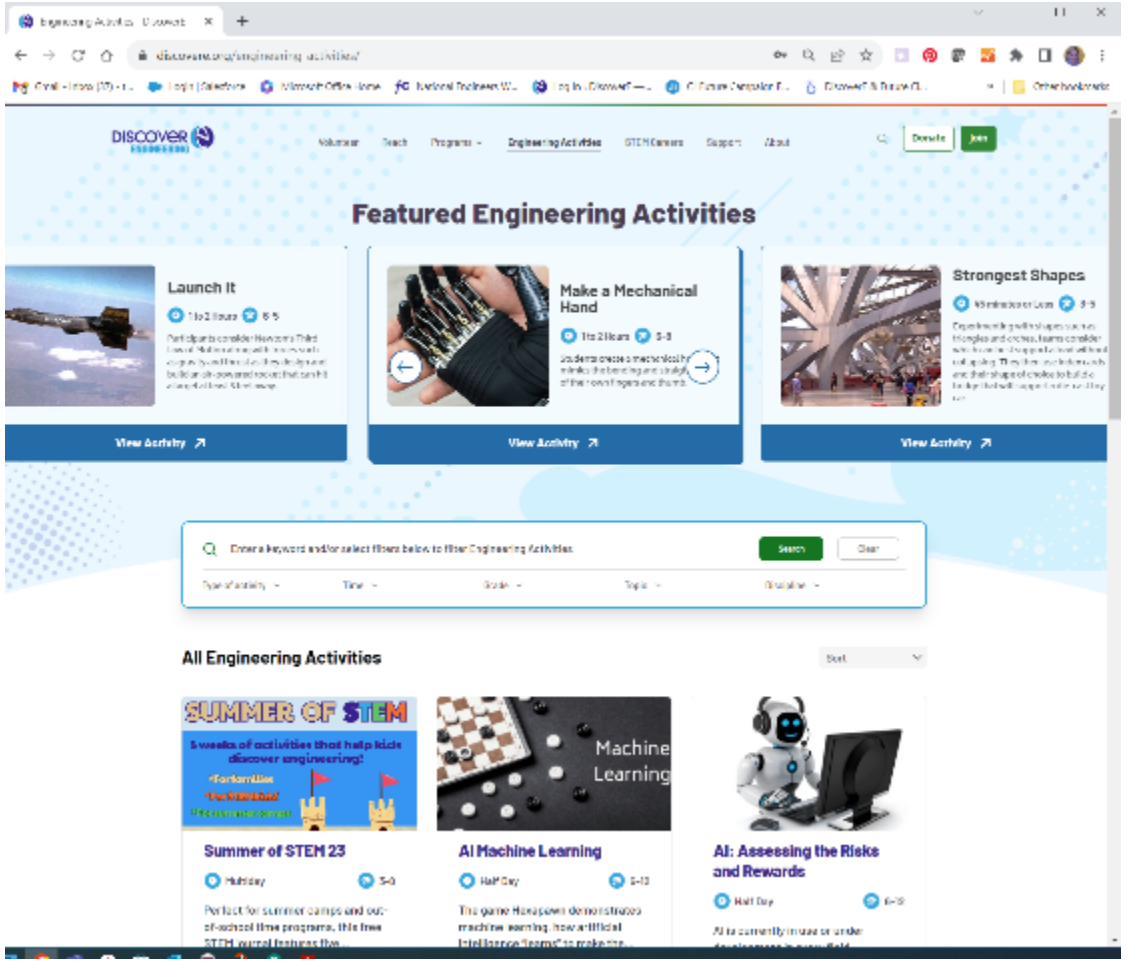
DiscoverE.org/Chats



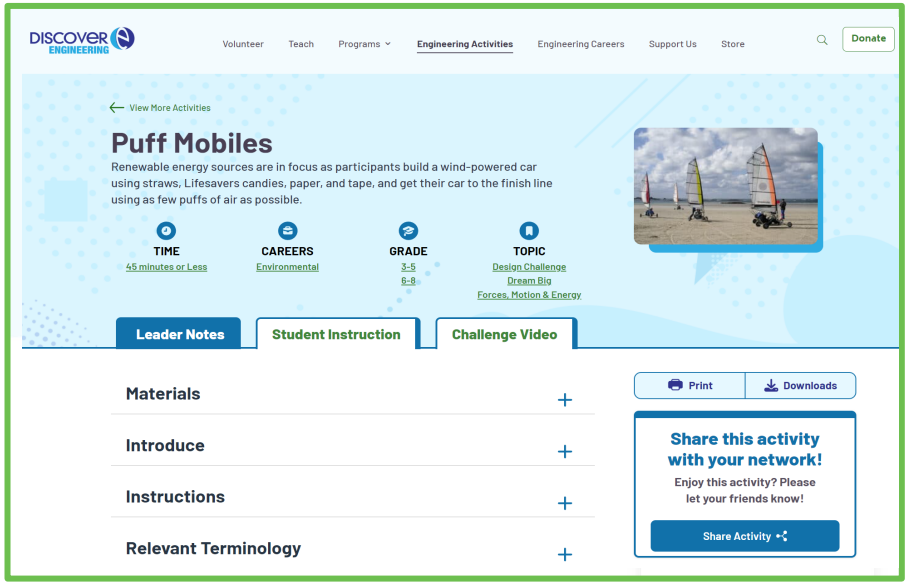
What is Future City?

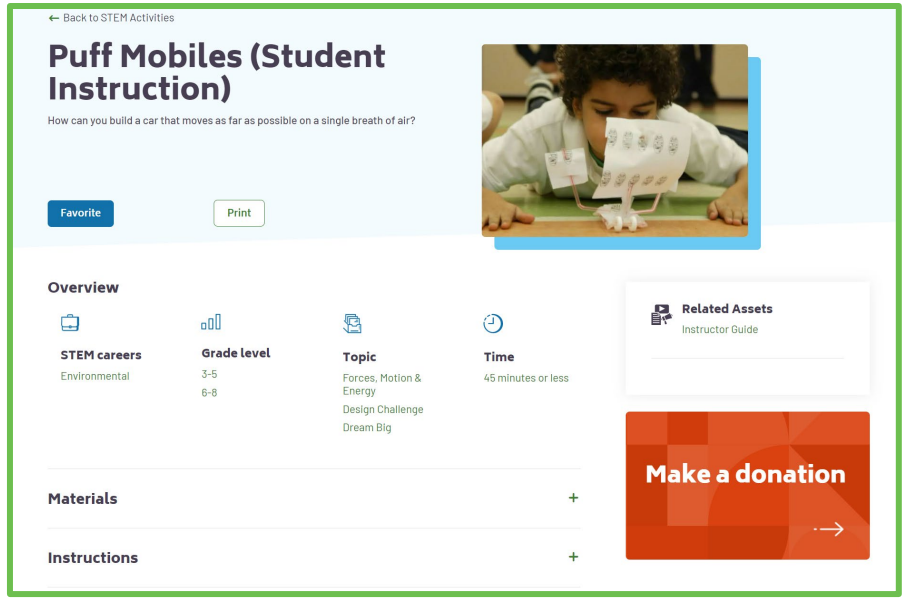
Middle and High School students work in teams to create cities that exist 100 years in the future based on an annual sustainability challenge.

Finding STEM Activities – DiscoverE.org



Spotlight: Challenge Videos





DiscoverE.org/Challenge-Videos

Types of Engineering Careers


Aerospace


Agriculture & Biosystems


Biomedical


Chemical


Civil

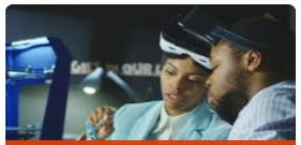

Computer Science


Electrical


Environmental


Industrial


Manufacturing


Materials Science


Mechanical


Mining & Metallurgical


Nuclear

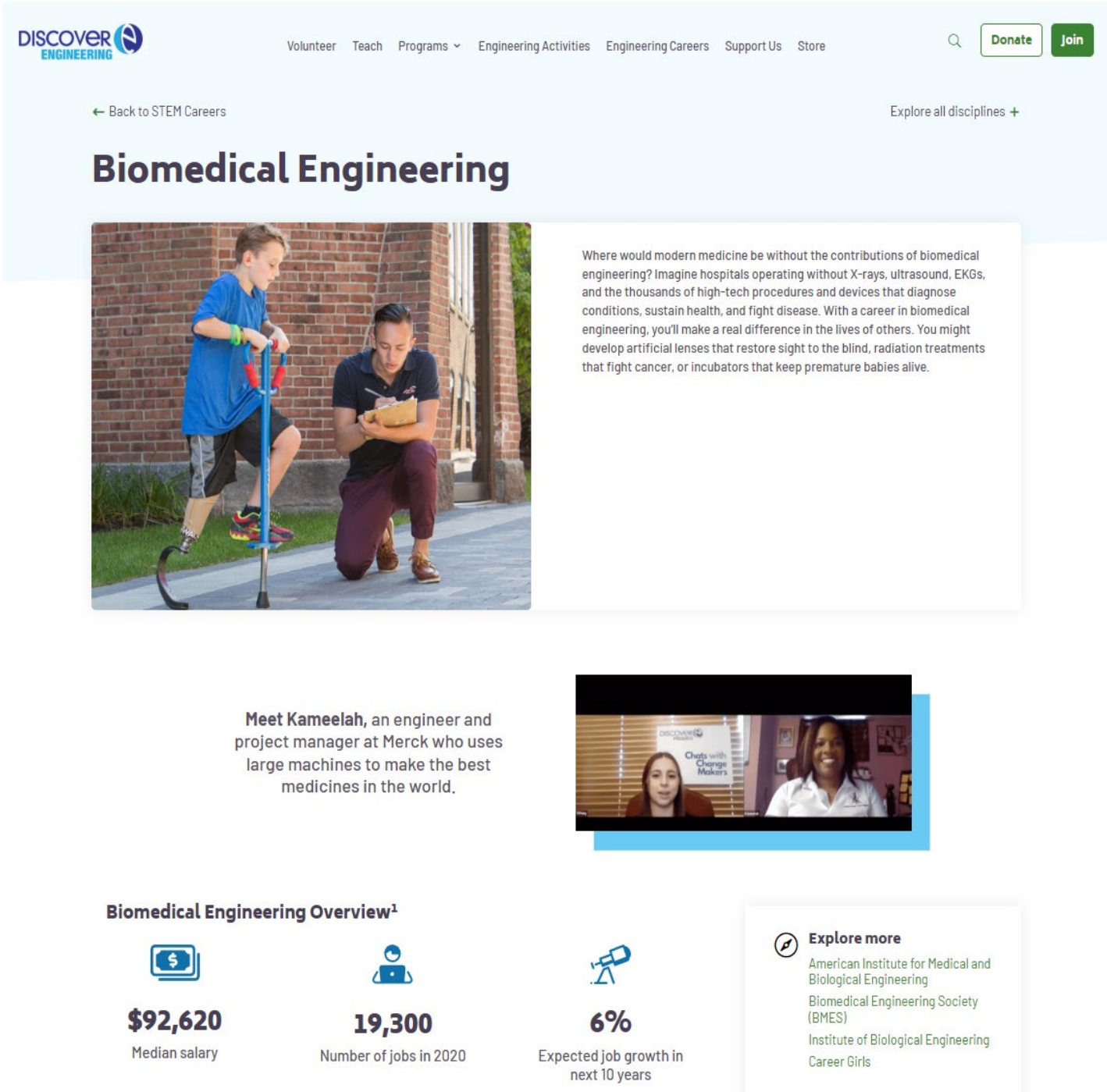

Petroleum


Project Management

DiscoverE.org/Engineering-Careers

Engineering Careers

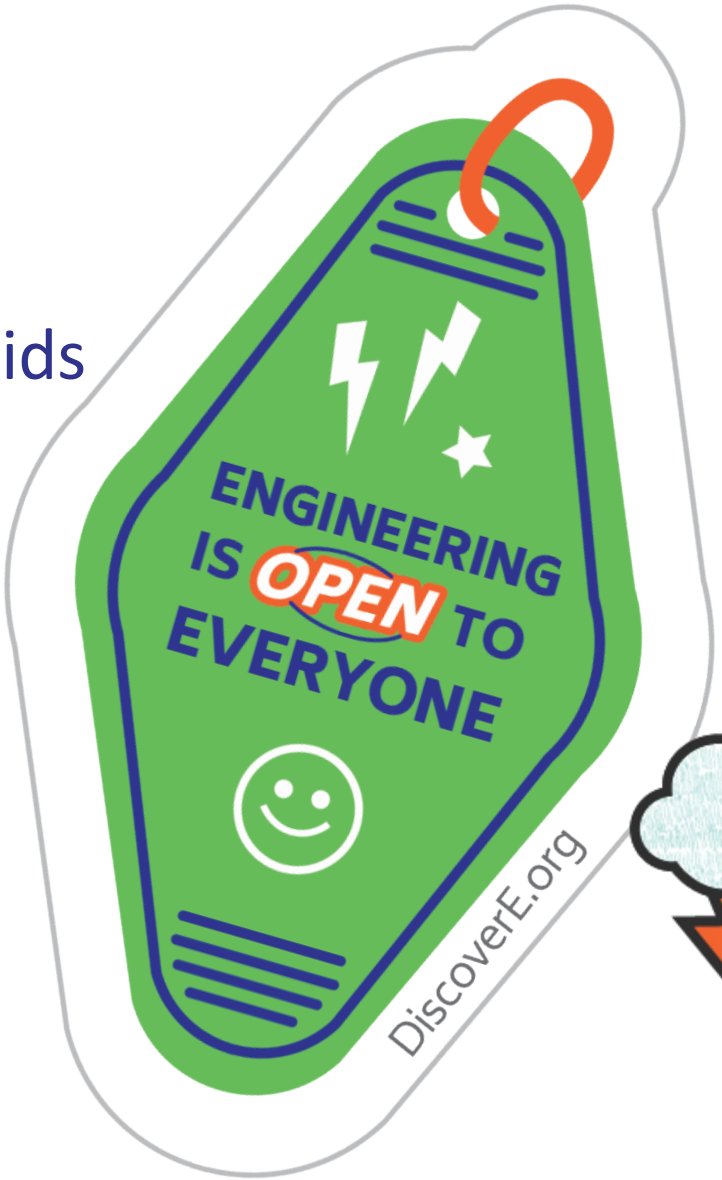
- Career Overview
- Meet Change Makers
- Salary Info
- Job descriptions for Bachelor's and Associate Degrees
- Related hands-on activities

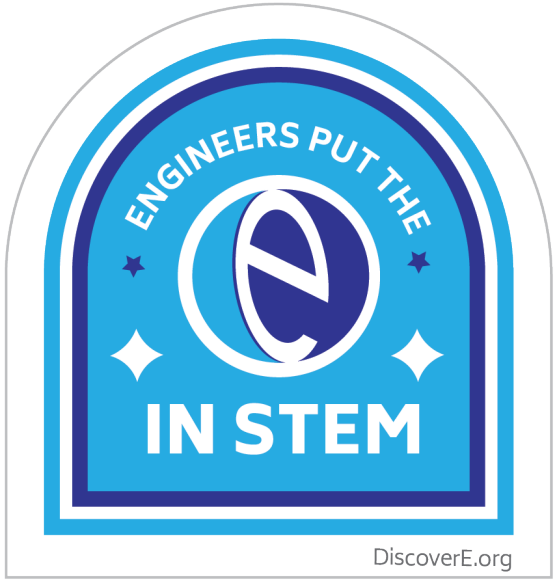


Stickers!

store.discovere.org

10% Off Coupon: StickersForKids





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