

Engineering Design Challenge Team Coach/Volunteer Description

For volunteer coaches of the 4-H Engineering Design Challenge (EDC).

Purpose

- Foster positive youth development through leading a team in the 4-H Engineering Design Challenge (EDC).
- EDC volunteers work with teams as "coaches" to create a safe, welcoming, and positive learning environment for all youth.

Time commitment

- Work with teams and meet approximately twice/month for a total of 20-30 hours (or more) prior to the showcase of their machine at the local county fair or state EDC event.
- Times and dates will be determined by coach and youth team members (along with parent/guardians).

What you will do

- Complete the MN 4-H [volunteer screening process](https://4-h-volunteer.extension.umn.edu/welcome-or-renew) to become a 4-H adult volunteer. (<https://4-h-volunteer.extension.umn.edu/welcome-or-renew>).
- Review and follow all guidelines and rules posted for the current year's [Engineering Design Challenge](https://extension.umn.edu/4-h-events/4-h-engineering-design-challenge). (extension.umn.edu/4-h-events/4-h-engineering-design-challenge)
- Recruit and invite youth to be part of an EDC team (or work with an existing group of youth). Share 4-H enrollment information. (<https://extension.umn.edu/4-h/join-or-re-enroll>)
- Lead a group of 3-10 youth in the 4-H EDC (grades 3-8 for Level 1 teams; grades 7-12 for Level 2 teams).
- Use the [Engineering Design Process](#) to guide youth as they create a EDC machine. Help youth experience the [8 Practices of Science & Engineering](#).
- Model and guide cooperation, respect, communication, and ways to respond to failures and frustrations as a normal part of the learning experience.
- Register your team for the county fair (or local showcase event), and/or state showcase event.
- Assist team members in fulfilling the requirements of the challenge, including keeping a team journal, building an EDC machine and meeting deadlines for participation in a local and state learning showcase.
- Communicate with team members/families regularly.
- Celebrate team progress and accomplishments.

- Follow all 4-H guidelines and policies of the University of Minnesota Extension, the Minnesota 4-H program and the local 4-H program.
- Have the ability to communicate effectively with youth, parents, and other adult volunteers and staff.

Benefits

- Be the spark that inspires the next generation of engineers or scientists
- Opportunity to share your passion and be a mentor to young people
- Receive training to enhance personal skills and knowledge
- Opportunity for personal growth:
 - Increased confidence
 - Learn problem-solving skills
 - Practice time management
- Potential to gain technical skills that are transferable to professional work and community environments.
- Satisfaction of contributing to positive development of youth, families, and community.

How to serve

- Visit the [Minnesota 4-H Volunteer Web-page](#) to learn specifics of the volunteer application, background check and orientation.
(<https://extension.umn.edu/volunteering-4-h/apply-become-4-h-volunteer>)

To learn more

- Contact your [Local 4-H Educator](#) to volunteer today!
- For program questions contact: Anne Stevenson, steveo20@umn.edu or Kelly Strei, streio16@umn.edu

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