

Engineering Camp

IMMERSE AND DEEPEN

Through Engineering Camp, students (ages 14 to 15) are immersed in the engineering design process and exposed to university life through a free, week-long camp experience. They deepen their awareness of and interest in engineering and develop important engineering habits of mind as they complete design challenges and interact with program staff, GE Aerospace and GE Vernova volunteers, and business leaders, initiating emergence of an identity as aspirant engineers.

Overview

The purpose of Next Engineers is to increase the number of young people pursuing engineering career paths by implementing three discrete but complementary programs – Engineering Discovery, Engineering Camp, and Engineering Academy. This document describes the **Next Engineers: Engineering Camp**.

The purpose of Engineering Camp is to deepen campers' awareness of engineering as a career and the pathways available to access these careers. It also aims to increase campers' interest in engineering by creating a positive outlook and attitude towards engineering.

Engineering Camp also encourages the development of engineering habits of mind (a set of six typical dispositions and ways of thinking practiced by engineers, listed to the right) and an identity as an aspirant engineer.

Camp structure

Community partner staff facilitate Engineering Camp, with support from current engineering students, engineering faculty, and/or GE Aerospace or GE Vernova volunteers. It is held over a week during school holidays or vacations and includes 30 to 35 hours of programming. It can be run as a residential or non-residential experience.

Camp is typically held on a post-secondary engineering education institution campus (e.g., a university or technical college). If Camp is not held on a campus, students will have the opportunity to visit a campus during the week.

Engineering Camp also includes a tour of a GE Aerospace, GE Vernova or other engineering workplace facility during the week.

Exposure to campus facilities and workplaces allows campers to see engineering in action, engage with real engineers about their work, and develop a deeper understanding of what engineering is and what it is like to study and work as an engineer.

Campers also complete several engineering design challenges, culminating in a capstone challenge after which they have the opportunity to showcase their ideas and products to a public audience of parents/guardians, facilitators, volunteers, and others. These showcase events give influential adults insight into the various careers available and the value of students pursuing such careers.

ENGINEERING HABITS OF MIND

- Systems thinking
- Adapting
- Problem finding
- Creative problem solving
- Visualizing
- Improving

30-35

Ideal number of hours for a non-residential Engineering Camp

VOLUNTEERS

To enrich the Camp experience, professional engineers can volunteer their time to support students by offering insight and guidance. Volunteers can participate in a variety of roles:

- Design Challenge Advisor
- Guest Speaker
- Tour Guide
- Presentation Audience Member or Reviewer



Camper selection

Annually, each Engineering Camp hosts up to 100 students aged 14–15 years (i.e., students who are not yet eligible for the Engineering Academy) and who reside in the geographical catchment area defined for Next Engineers in each city.

Engineering Camp is free to students, but they are required to apply via an online form. Over-subscription is managed via lottery, with unselected, eligible students placed on a waiting list.

Engineering Camp is open to all eligible students. However, Community Partners target marketing through Engineering Discovery channels.

For more information about Next Engineers visit www.NextEngineers.org.

Description revised June 2025.

100

Number of campers each Engineering Camp should accommodate.

