

Room 148.

Interested in learning the principles of engineering?

Join us for a week of fun, hands-on activities like building robots and coding in C++! No experience is needed, just curiosity and a willingness to try something new.

- Build VEX V5 robots
- Learn the basics of C++ and explore the Lemlib robotics library
- Apply engineering principles through creative problem-solving and design challenges

We highly recommend joining if your child is interested in participating in robotics at CVHS!

- **When is it: Day and time**

- The camp will be held from Monday, August 4th through Friday, August 8th. There will be two sessions one can choose from:
 - Session 1 is three days (Monday, Tuesday, and Wednesday)
 - Session 2 is five days (Monday, Tuesday, Wednesday, Thursday, and Friday) and is meant for those seeking more in-depth application of principles learned in the first three days
- Students will have a choice of attending 3.5-hour sessions in either the morning (9:00 am - 12:00 pm) or afternoon (1:00 pm - 4 pm). This way, they can choose to attend one of the other camps (Math, Reading, AP Human Geography) alongside engineering on the same day.

- **How to register for it: have a google form ready**

- Please register with the Google form below!
<https://forms.gle/7r516zgKL3Bufg3e7>

FAQ:

What is the camp about?

The CVHS Engineering Camp is a 3-5 days long, hands-on enrichment experience for incoming freshmen interested in engineering, robotics, and/or programming.

When and where will the camp be held?

The camp will be held at Carnegie Vanguard High School and will have two sessions: Monday - Friday and Monday - Wednesday.

What will students learn?

Students will learn by exploring foundational engineering principles through engaging, hands-on activities. The camp is designed to first introduce theoretical concepts, which students will then apply through hands-on activities using VEX robotics parts, guided by members of the school's 285X robotics team. We will mainly touch upon mechanical engineering principles of design and construction, C++ programming, and briefly the process of CADing and creating a digital engineering notebook.

Does my child need experience in robotics?

No, your child will not need any prior experience in robotics or engineering. We are excited to welcome beginners and will teach all the foundational skills they need through fun, hands-on activities and guided lessons. The goal is to spark interest and build confidence from the ground up.

Who will be leading the camp?

Carnegie's award-winning VEX robotics team, Discobots X (285X), will be the instructors for the camp. They are an established team with a long history of success at the state and international level.

What is the difference between Session 1 and Session 2?

Session 2 is an extension of Session 1 that covers the same materials but with two extra days of practical application. Students from both sessions will participate together for the first 3 days, and both sessions will cover engineering principles, introduction to robotics, and a small amount of hands-on building.

Session 2, however, will also feature the opportunity to collaborate in the full construction of a VEX V5 robot, application of programming, and a mini-competition where the students can showcase the robot they work on during the camp. We highly recommend that students participate in Session 2 to get the most out of this experience!

What if the student absolutely cannot attend any full session but is still interested in the camp?

There is an additional section on the Google form for extenuating circumstances.

Who do I contact with additional questions?

Please contact cvhs.engineeringcamp@gmail.com for any additional concerns or questions.
