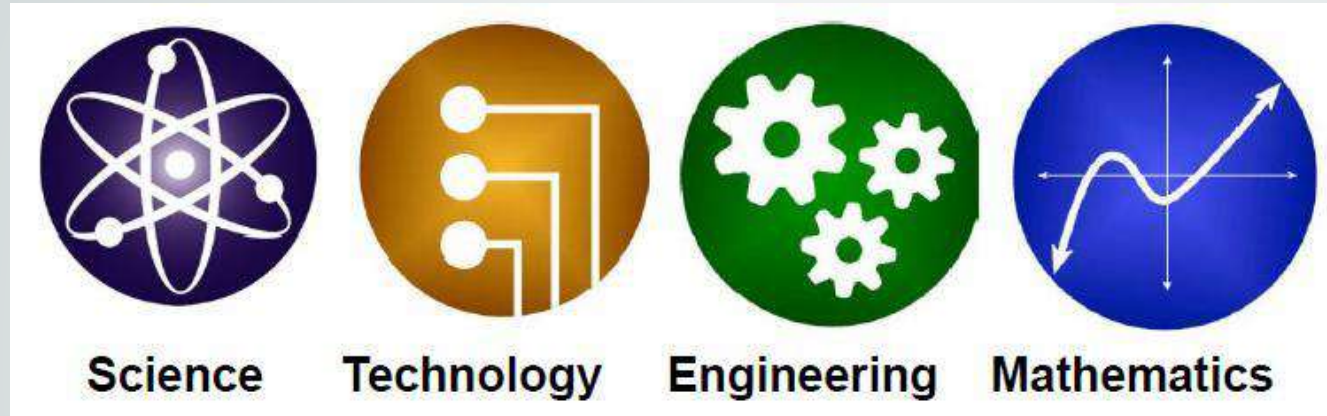


Parent Information Night

What is Engineering?



Engineering is the application of science and math to solve problems.

What is LEAD?

A **career pathway** with a **rigorous, hands-on, problem-based curriculum** that integrates math, science, engineering, and humanities to introduce & prepare students for the many opportunities available in the field of engineering and design.

What Students Say about LEAD

“I felt like a person
majoring in engineering
while still in high school.”

-Ashley



What Students Say about LEAD

“LEAD allowed me to make friends who have similar interests and helped build my teamwork skills.”

-Adrian



What Students Say about LEAD

“The projects are very interesting, and I like the hands-on experience.”

-Madeline



What are the benefits?

- Interact with engineers in a variety of fields.
- Earn free college credit through LEAD articulated courses.
- Enter college with a strong foundation in engineering, team-work, communication, and problem-solving.

Field Trips

JPL

Cal Poly
Pomona

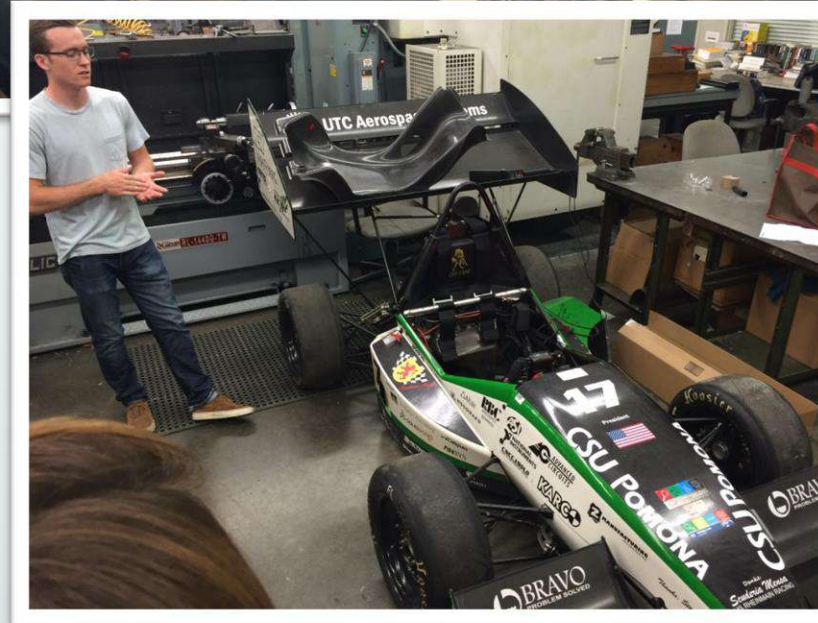
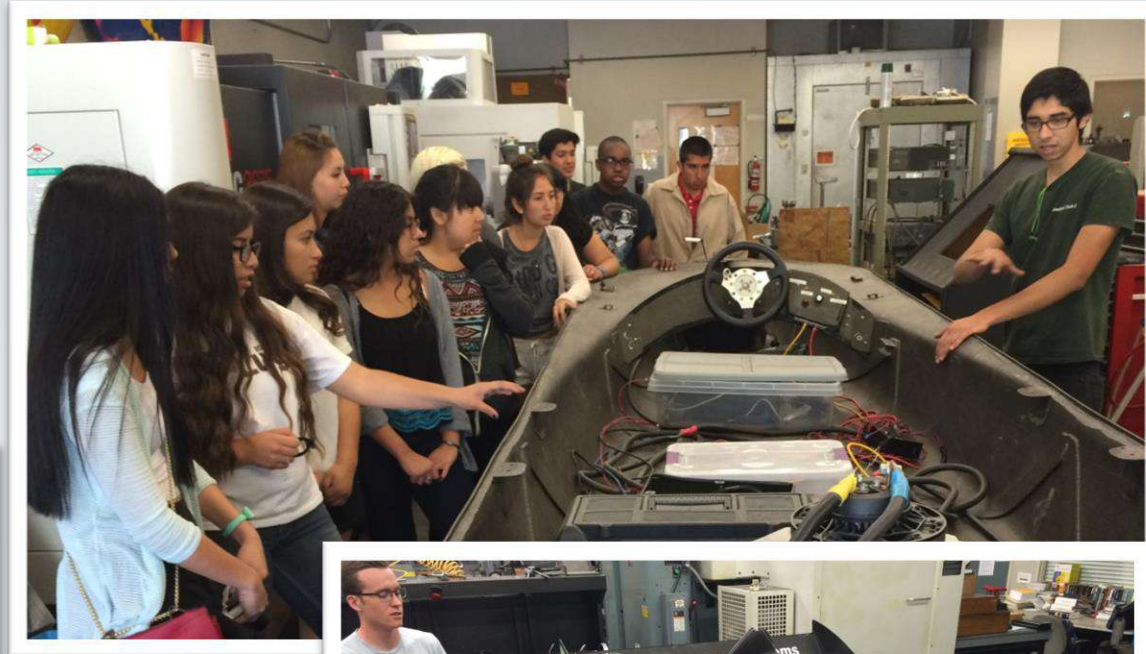
Fender

Women in
STEM

Manufacturing
Day



Field Trips



JPL

Cal Poly
Pomona

Fender

Women in
STEM

Manufacturing
Day

Field Trips



JPL

Cal Poly
Pomona

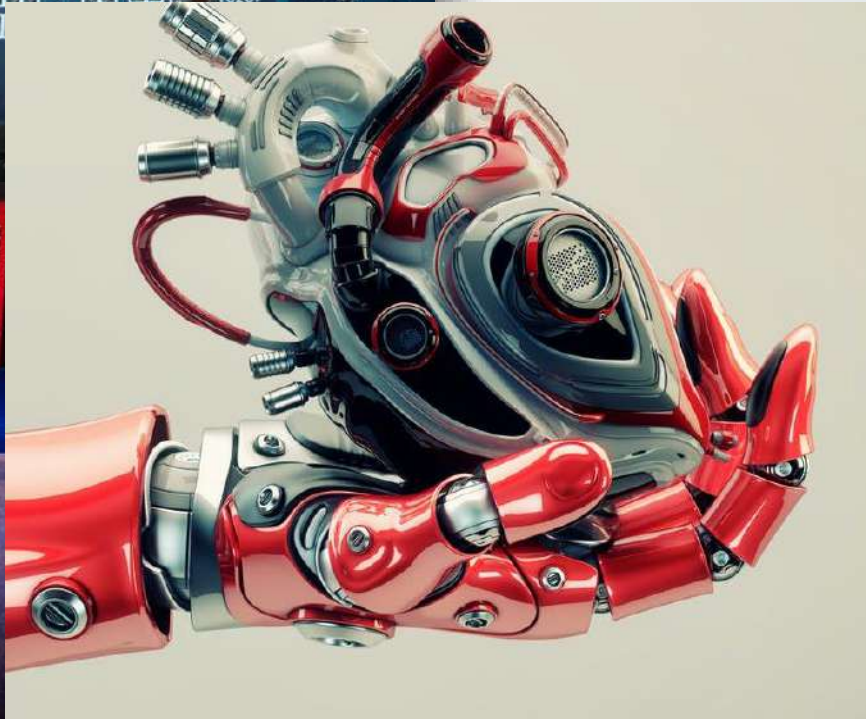
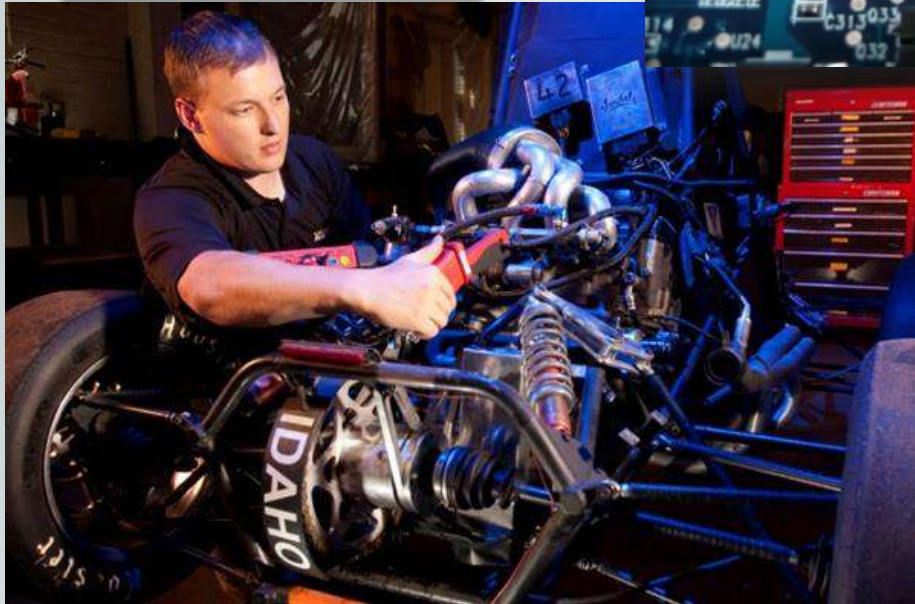
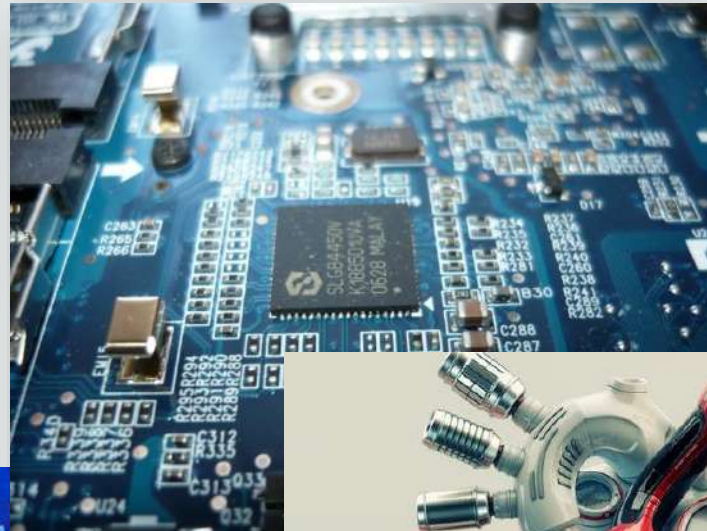
Fender

Women in
STEM

Manufacturing
Day

Why would you want to become an engineer?

Do you want to be paid well?



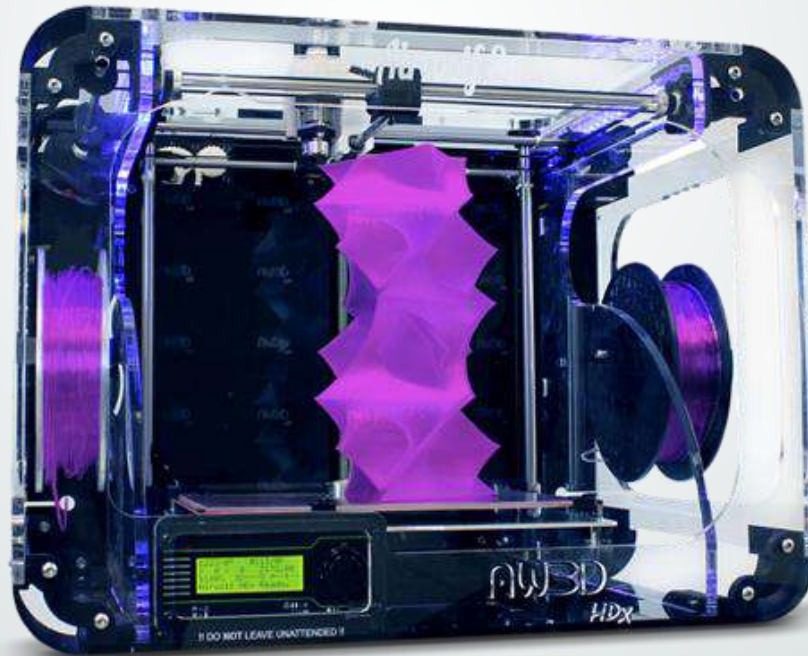
**Mechanical
Engineering
\$63,000**

**Electrical
Engineering
\$66,900**

**Biomedical
Engineering
\$61,900**

Access to Technology

- 2 Dedicated Engineering Labs
- Professional Software
- 3D Printers
- Laser Cutter
- Mill
- Lathe
- CNC Router



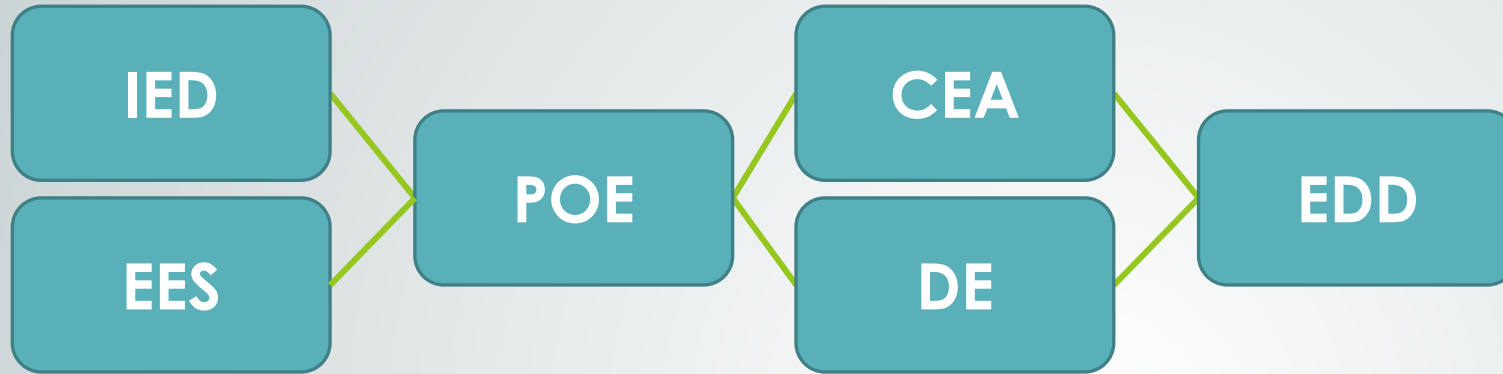
OnShape

Fusion360

Revit

Multisim

Course Sequence



Field Trips

Engineering Club

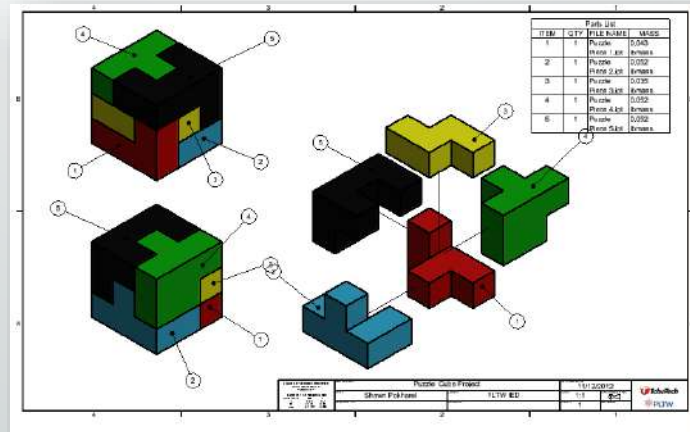
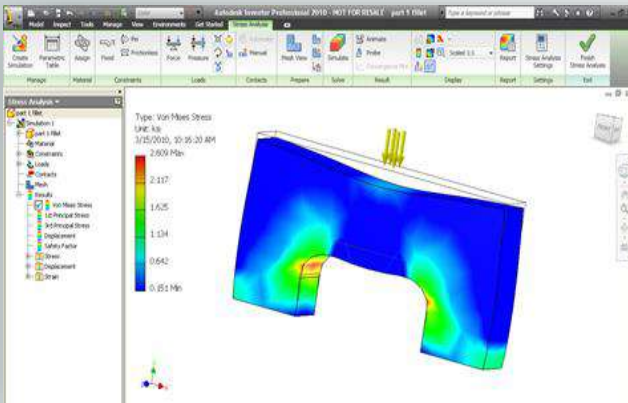
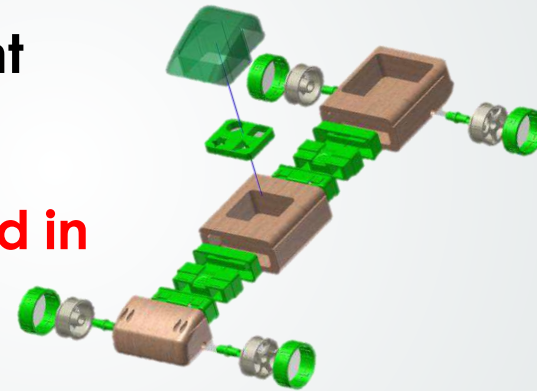
Robotics Club



Introduction to Engineering and Design (IED)

- ✓ Meets UC "F" Requirement
- ✓ Free College Credit
- ✓ 3D Computer Aided Design
- ✓ Basic Product Design and Development

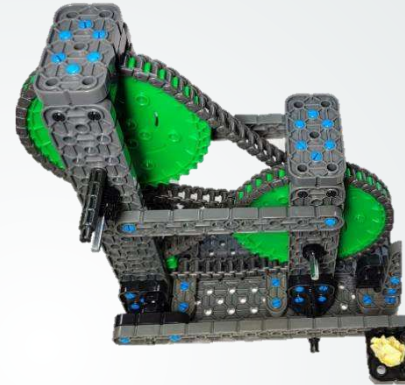
Best for students in IM2 Honors or interested in UC "F" Credit



Freshman Year

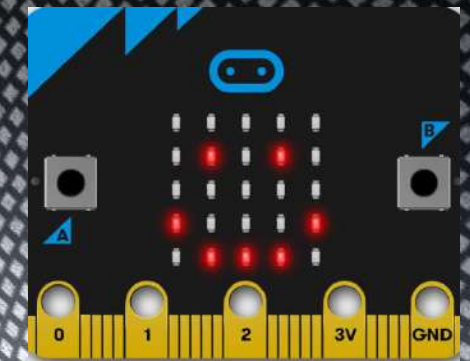
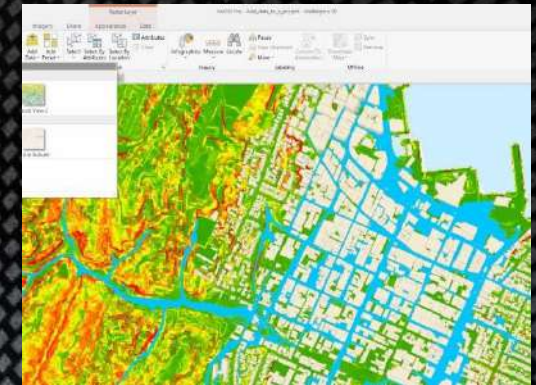
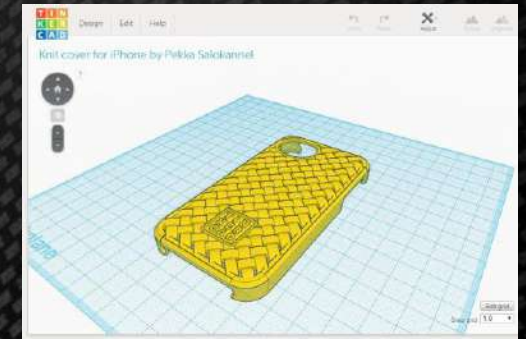
Engineering Essentials (EES)

- ✓ Meets UC “G” Requirement
- ✓ Survey of Engineering
- ✓ Computer Aided Design (CAD)
- ✓ Mechanical Design
- ✓ Circuit Design and Programming
- ✓ Geographic Information Systems (GIS)



Best for students who will be taking IM1 and are interested in technology. Students are recommended to take “IM1 with Robotics”.

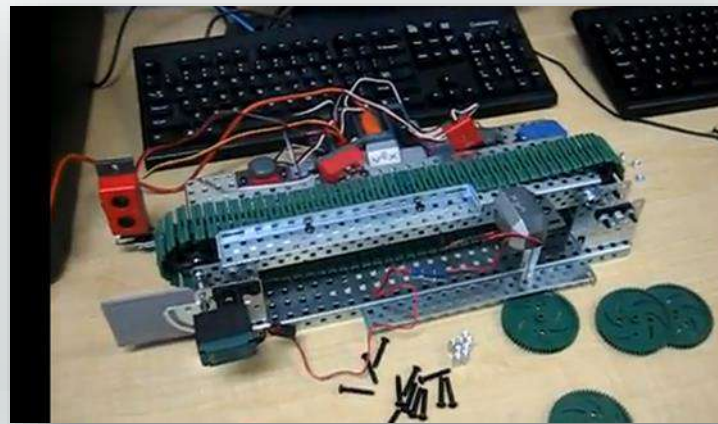
Freshman Year



Principles of Engineering (POE)

- ✓ Meet UC “G” Requirement
- ✓ Free College Credit
- ✓ Automated machines and simple robots
- ✓ Bridges and structures
- ✓ Materials science
- ✓ Kinetics and kinematics

Students should also be enrolled in Physics, Physics Honors, or Physics AP.

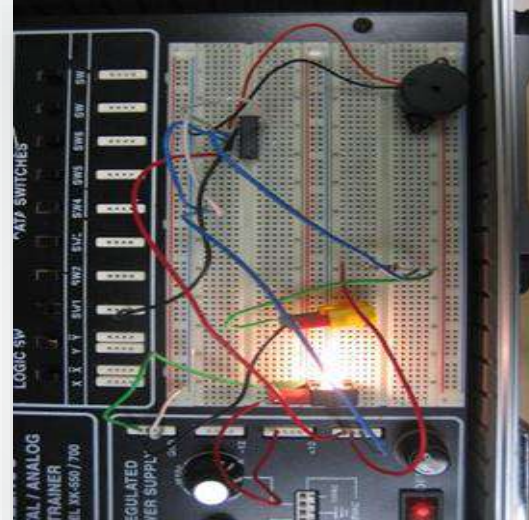


Sophomore Year

Digital Electronics (DE)

- ✓ Meets UC "G" Requirement
- ✓ Circuits
- ✓ Soldering
- ✓ Logic and logic controls
- ✓ Wiring of simple and complex circuits

Best for students interested in electrical or computer engineering.



Junior Year

Civil Engineering and Architecture (CEA)

- ✓ Meets UC "G" Requirement
- ✓ Free College Credit
- ✓ Designing of Buildings and Houses
- ✓ Land Development
- ✓ Structural Design
- ✓ Utilities

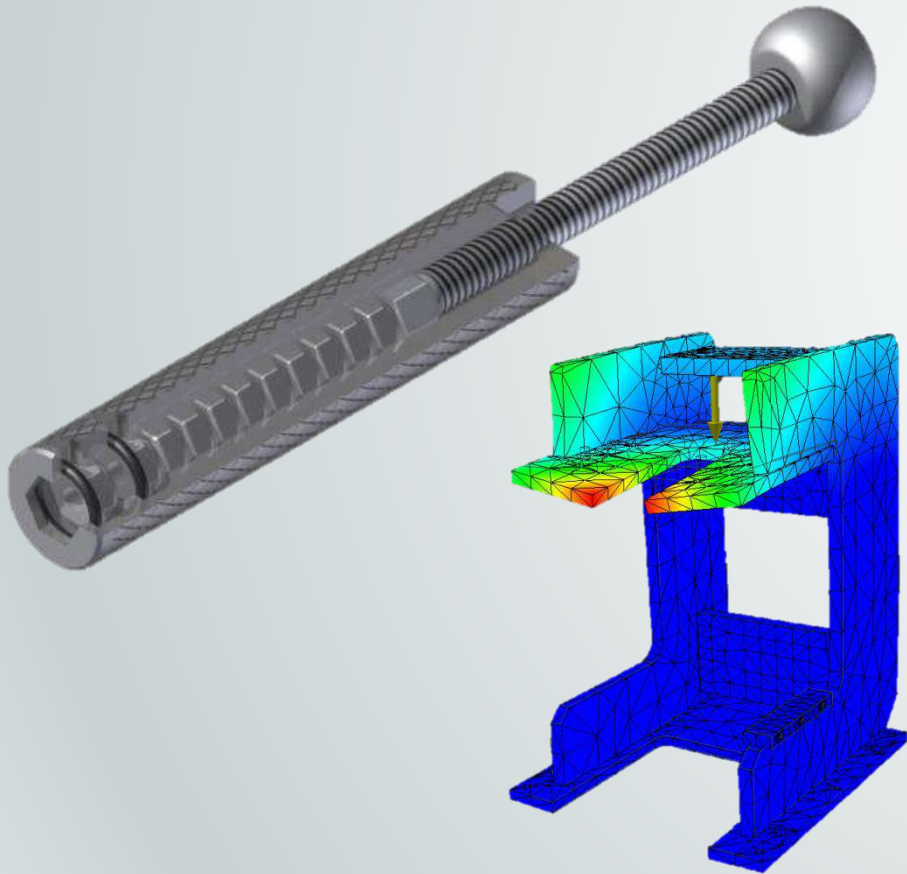
Best for students interested in building design or construction.



Junior Year

Engineering Design and Development (EDD)

- ✓ Meets UC "G" Requirement
- ✓ Work in teams to solve problems of your choosing!



Senior Year

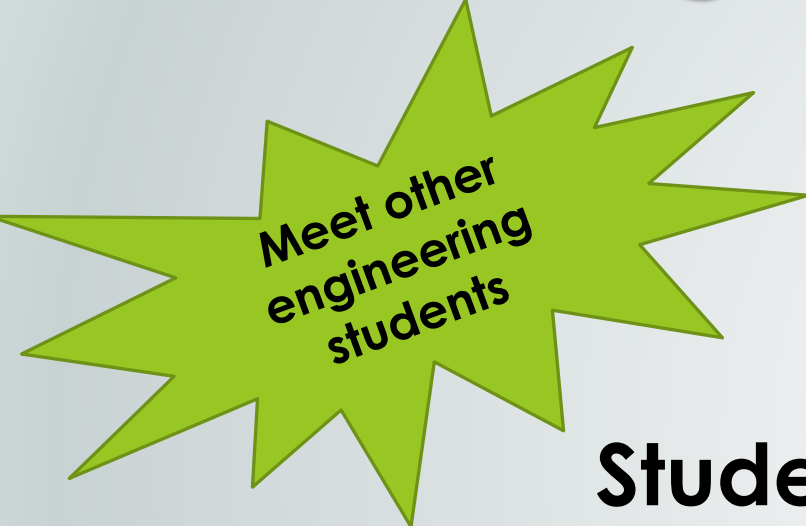
Typical 9th Grade LEAD Student Schedule

1. English 9 or 9H
2. Biology or Biology H
3. Integrated Math
 - IM 1,
 - IM1 w/ Robotics,
 - IM 2/H
4. PE 9 or Athletic PE (for Athletes)
5. Intro to Design or Engineering Essentials
6. Foreign Language Y1
 - Spanish,
 - French,
 - Sign Language

**Health course is taken in the summer after 9th or 10th grade.*

LEAD students get priority registration.

Engineering Club



Meet other
engineering
students

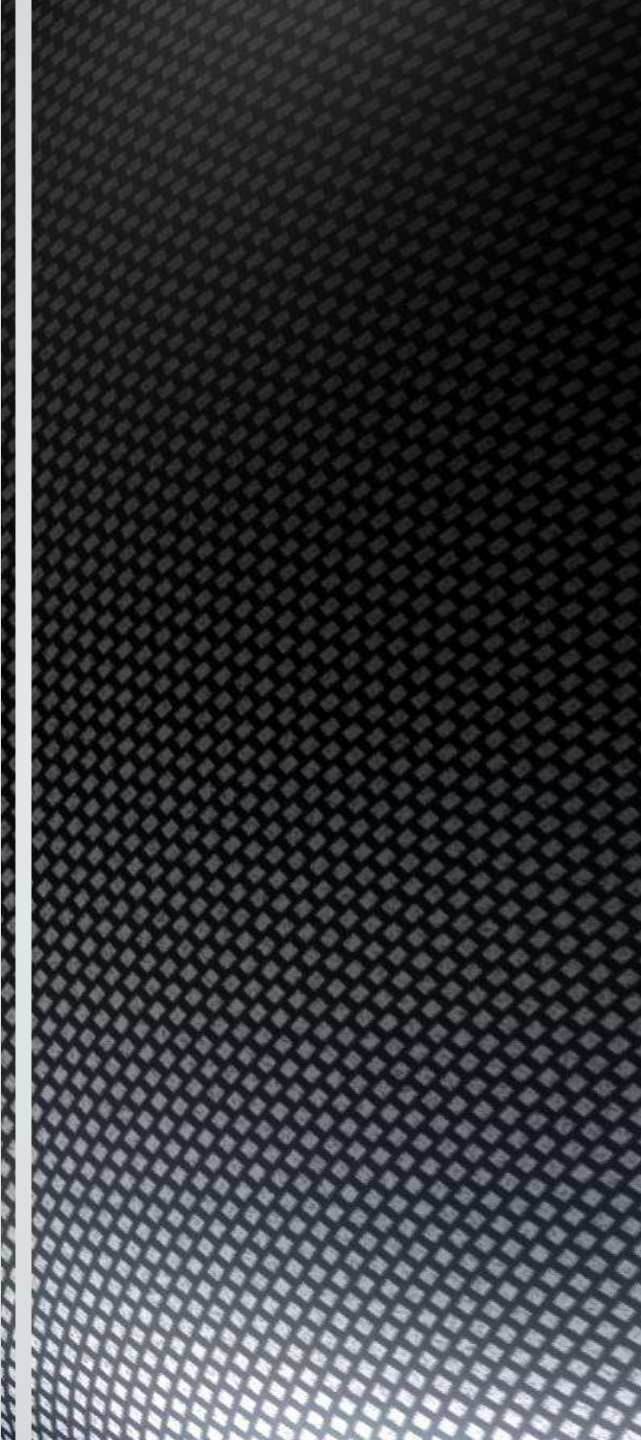
Students taking action!

- **Outreach**
- **Social events**
- **Fundraising**

Open to everyone!

Robotics Club

- ✓ Learn new skills
- ✓ Compete against other schools
- ✓ Work with mentors from industry



LEAD Academy Staff

Mr. Brian Engstrom – Coordinator/ Engineering Teacher

Mrs. Maricruz Silva – LEAD Counselor

Mr. Odyssees Cantos – Chemistry Teacher

Ms. Bei Collins –Math Teacher

Mr. William Crisafi – English (9/10) Teacher

Ms. Tracy Hill – English (11/12) Teacher

Ms. Audrey Rohrer- Biology Teacher

Mr. David Robinson- Engineering/Math Teacher

Mr. Patrick Woods – Physics/Engineering Teacher

Next Steps

The screenshot shows the website for Don Antonio Lugo High School. At the top left is the CVUSD HOME logo. The school's name and logo are prominently displayed. Below the header is a navigation bar with icons for home and calendar, and menu items for ABOUT US, ACADEMICS, ATHLETICS/ACTIVITIES, CLASSROOMS, and PARENTS. The ACADEMICS dropdown menu is open, with 'Academies' highlighted in a red box. Other items in the dropdown include Departments, Counseling, Career Center, and Advanced Placement (AP) Program. In the background, a 'Blended Learning Schedule' table is partially visible, showing dates like Monday (No School 4/5) and Wednesday (Cohort B 4/7).

- 1) Go to www.donlugo.com
- 2) Click Academics
- 3) Select Academies
- 4) Complete LEAD application

For more information:

Brian_Engstrom@chino.k12.ca.us

Maricruz_Silva@chino.k12.ca.us

Next Steps

Mr. Finch, freshman counselor, will visit middle schools in April for registration.

Select “Intro to Design” as your number ONE elective choice on Aeries student portal.

Thank you for Joining Us!

