

*"knowledge isn't power,  
applied knowledge is power"*

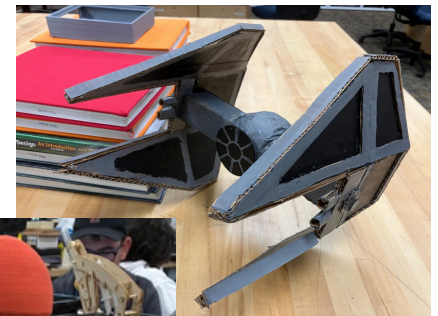


SPRING 2022-2023  
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## A QUARTERLY NEWSLETTER CELEBRATING TUSTIN HIGH SCHOOL'S TECHNOLOGY & ENGINEERING PROGRAM

### MAGIC WITH CARDBOARD

Even engineers at Dyson work with cardboard in their product development process. Our sophomores took a break from 3D modeling to create some of the best cardboard creations to date. The material is cheap and plentiful, but it is not as easy as it may seem. A lot of work went in to making these masterpieces - you may never look at cardboard the same way again!



### SENIOR PROJECTS UPDATE

How many of us can say that they've made a fully functional electric guitar from scratch? This trio of seniors certainly can: Ernesto Ortiz, Helio Ordonez and Amelia Georgy have spent the last six months painstakingly carving, shaping, and wiring their own custom creations. They are now alive! Along the way, our students have developed a greater appreciation for the scientific and mechanical complexity of a modern electric guitar. These are real instruments ready to rock!



Ernesto Ortiz, Helio Ordonez, Amelia Georgy

## HANDS-ON HYDRAULICS

By using the scientific discoveries of Blaise Pascal in the mid 17th century, we are able to use fluids to improve our everyday lives. Hydraulics are used in cars, airplanes, construction equipment and more. They help us control robot arms and lift thousands of pounds with ease. This month, our junior POE class built and operated a model hydraulic robot arm to further illustrate the principles of fluid power. If you only learn by reading a book, you're missing a lot. There is no better way to learn than by doing.  $P = F/A$  !



Miranda Reyes and Jamera Fernando testing their robot arm.

## ALUMNI SPOTLIGHT

This quarter, we highlight Forrester Sherrick, T-Tech class of 2016. While at Tustin High, Forrester was consistently one of the school's top science and math students. As a junior, he was selected as a Boeing Intern where he excelled and cemented his desire to pursue a career in space. After THS, he attended UC Irvine where he double-majored in Aerospace and Mechanical Engineering. While at UCI, he once again landed an internship spot at Boeing! Today, Forrester is a mission systems engineer at the Jet Propulsion Laboratory in Pasadena working on Artemis, Mars Express, MAVEN, and Deep Space Network. He is a true rocket scientist. Way to go Forrester, you make us all proud!



Forrester Sherrick, THS Class of 2016

## Upcoming Events

Senior Showcase May 23rd, **6:00 pm** in the T-Tech shop. Join us for burgers and shave ice as our seniors show off their year-long projects.

Contact Mr. Hernandez with any questions at [ehernandez@tustin.k12.ca.us](mailto:ehernandez@tustin.k12.ca.us)