

Raise3D Teams up with Local High School to Bring Additive Technology to the Classroom



Jeff Farr is at the forefront of 3D printing, CAD, and manufacturing; integrating [Raise3D](#) additive manufacturing systems into the education curriculum at Foothill High School.

<https://www.raise3d.com/case/education-with-3d-printing-in-engineering-and-technology-video/>

Jeff Farr is a teacher at Foothill High School in Tustin, CA, with 26-years' experience in engineering and technology education.

Using their fleet of Raise3D N2's, Jeff Farr is inspiring the next generation of engineers to build without limitations and create anything they can dream up.

3D Printing in Education

I've been teaching at Foothill for 26 years. My program has five different courses that students can take. We have some freshman entry-level introductory courses, all the way up to senior capstone courses.

The freshman course is a computer-aided drafting and 3D modeling class. My next level of class studies mechanical engineering, civil engineering, and robotics engineering. The third class is a machine shop and engineering technology program where they learn welding both MIG and TIG welding. They [also] learn to use CNC manufacturing machines, a mill, a lathe, and a plasma arc machine.

We have a 1923 hot rod, which was donated to our program. Two of our students have taken on maintaining it, and we finally got it running, and it went to its first car show last weekend. They're learning manufacturing processes that allow them to actually make real stuff.

The next class I have is a senior-level capstone course and that's where they design and innovate a project that comes into their mind that they want to solve a problem for.

In addition, I have a robotics program and afterschool robotics team. That's all-volunteer after school, it's not part of a classroom environment. Now our robots are really stacking the cones issues of cone stacking competition at the highest level. We stacked 21 cones in a competition just last Saturday and that's the highest stack in the world right now.

Why 3D Printing

I have included 3D printing into our program for many different reasons but the first reason is,

I wanted kids to physically be able to touch what it is that they dream of in their minds. So they can dream it up, they can put it in a 3D model in a [computer-aided drafting system](#) and then I wanted them to take it out of the computer and make it physical so they could actually touch it. They could see if it was really what they wanted, [they could] see if it was dimensionally correct for its purpose. That was really the first reason that I got the 3D printing going.

"Now I've elevated that to all the 3D printers we have in our room because I want students to learn—what I consider probably one of the foremost up-and-coming manufacturing processes in the world"

As the machines develop the ability to 3D print in all kinds of exotic materials besides plastic, ABS and PLA, and things like that, it will allow us and allow the manufacturing world to really make a dynamic shift from cutting it out of metal in a CNC machine to 3D printing it in metal.

Getting Ahead of The Curve

I know this is on the cusp of where manufacturing is going, not for everything but for some things, and so I want my students to have that hands-on approach to learning by actually touching the machines because I can see a lot of future jobs are going to require 3D printing. That's why I have so many on my campus.

I picked the [Raise3D](#) printer for really three reasons. The machine was easy to use. I saw that the machine was understandable for students to use. It wasn't so complicated that they couldn't learn very quickly within one day's time how to operate a machine at the basic level and then elevate from there.

Three Reasons [Why Raise3D](#)

So there was: ease of use, approachable by students and the price point made it possible for me to buy enough of them that I could have multiple students using the machines instead of just one student using the machines.

The Future of 3D printing at Foothill High

Here at Foothill High School, I have definite dreams and plans for expanding my 3D printing and purchasing more Raise3D printers. The wall behind me is going to be coming down, I'm going to be expanding my innovation design center twice as big and I'm looking at definitely buying the next level 3D printer from Raise3D for this facility.

Connect with Raise3D

Do you have a great 3D printing success story and think it would be cool to be featured on www.raise3d.com, we would love to learn more! Write to us at inquiry@raise3d.com

For more information about Raise3D printers and services, browse [our website](#), or [schedule a demo](#) with one of our 3D printing experts.