

# 3D Printing Creates a Whirlwind of Innovation in the Field of Education

Raise3D Case Study

<https://www.raise3d.com/case/3d-printing-creates-a-whirlwind-of-innovation-in-the-field-of-education/>



3D printing meets the current requirements of STEM education to promote the all-round development of young people, so it has been widely introduced into classrooms and laboratories of various schools. 3D printing promotes innovative teaching methods and the participation of students and teachers in classroom activities. In addition, 3D printing has greatly stimulated students' creativity and collaboration skills.

## School education before the introduction of 3D printing

Before 3D printing was introduced in the classroom, teachers relied on multimedia and pre-designed teaching aids to teach new material to students. Students are limited to expressing their ideas through writing and two-dimensional or three-dimensional drawings. However, 3D printing enables schools to cost-effectively make modeling part of the educational process.

## 3D printing intuitively displays teaching content in elementary education



Students in Tustin Foothills High School printed arms of robots with [Raise3D Pro2 printer](#).

Educators, ranging from elementary school to high school, can apply 3D printing in classrooms to show more detailed physical prototypes, helping students understand scientific concepts. Jeff Farr, a teacher from Tustin Foothills High School in California has purchased multiple [Raise3D Pro2 printers](#), which are very simple to operate. Students can master the basic knowledge of 3D printing in one day and practice printing models such as nuts and wrenches. Learning 3D model design and printing can help students improve their creative skills and innovation ability. It also gives students the chance to practice using 3D printers.

## 3D printing is more widespread in higher education



The teachers and students of ISCR repaired artworks with a [Raise3D Pro 2 printer](#).

3D printing is widely applied in higher education. The teachers and students of *Istituto Superiore per la Conservazione ed il Restauro (ISCR)* in Italy use 3D scanning and the [Raise3D Pro 2 printer](#) to repair and preserve Italian murals, bronze statues, and other artworks. Students use Raise3D official filaments and the OFP (Open Filament Program) to choose 3D printing materials such as wood filler, silicone, nylon, polycarbonate, carbon fiber, PLA, and ABS for printing.

The variety of filament options allows students to imitate the color and texture of the artwork. [The Raise3D Pro 2](#) printer provides teachers and students with a large printing area that can produce the models they need. Dual-nozzle printing allows two colors or filaments to be printed at the same time so students can easily print large-scale and complex sculptures. Students also used [ideaMaker](#), an intuitive and easy-to-use 3D slicing software, to design and slice the model. The software is also available in multiple languages, including Italian.

## 3D printing and scientific research



Jon Goebel printed oversized coral models with [Raise3D Pro2 Plus printer](#).

Jon Goebel, associate professor of the Department of Art at the University of Hawaii, printed more than 100 extra-large coral parts with [Raise3D Pro2 Plus](#) to attract the public's attention. The build volume of [Raise3D Pro2 Plus](#) is 12 X 12 X 23.8 inches (305 X 305 X 605 mm), making it the best large format 3D printer in Goebel's price range.

In addition, Goebel also chose Raise3D PLA as the printing material because it is a biodegradable bioplastic that can better catch people's attention regarding coral ecology and plastic pollution.

## The future of 3D printing technology in education

3D printing will become an important driving force to encourage innovation among students and teachers alike. Using 3D printing technology, students can be more involved in classroom teaching activities while better understanding prototyping using additive manufacturing and lay even more foundations for future education. 3D printing technology provides opportunities for more practice and projects for teachers and students in higher education settings, and will inevitably create a whirlwind of interdisciplinary and practice-oriented innovation in the entire education field.

## 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](http://www.raise3d.com), we would love to learn more! Write to us at [inquiry@raise3d.com](mailto: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.