

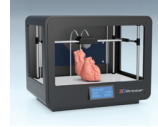
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IN THIS ISSUE

PAGE 02



3D Bioprinter in Your Living Room

PAGE 03



CATIA Version 6 Release 2013X

PAGE 04



Cool Summer Offer

Celebrating 30 years of Training Excellence



## Autodesk Releases **REVIT 2019**

Autodesk released the latest version of its modeling software, 'Revit 2019' on April 11 2018. The updates in Revit 2019 are a result of the suggestions and feedback provided by the users on the Revit Ideas page.

It added some great and lucrative features across three main categories of Design, Optimize, and Connect.

### ● Addition of the 'Or' Variable In Filters

The most famous demand or request on the Revit Ideas Page was for 'view graphics' with the 'or' option added to view filters. This feature gives users flexibility and power over setting up custom views and a better modeling environment with more immersive 3D features.

### ● Double fill patterns

Autodesk Revit 2019 includes many new design features, including new double fill pattern (foreground and background) files and a library of more realistic renderings of textures for materials like carpets, ceilings, concrete, glass, leather, etc.

### ● Support for Multiple Monitors

Today, the user works with multiple views open at once and are looking for better ways to manage them. Therefore, Revit 2019 has new Tabbed Views which deliver a modern experience that lets user maximize their working space. Also, it now allows the user to drag views out of the Revit application window to secondary monitors as a means to adjust user's working space as per their requirement.

### ● Levels in 3D

Revit 2019 supports new levels in 3D views feature, which enables users to visualize building levels in orthographic and perspective 3D views. The user can arrange and organize views exactly as per their requirements. It also adds uncropped perspective to the new version which allows brings them immersive 3D experience without boundaries.

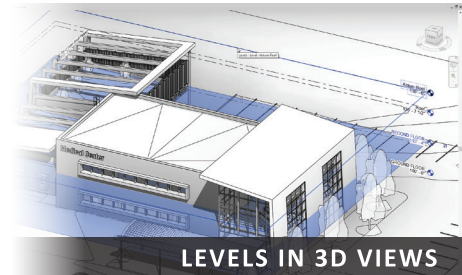
### ● Split Railings

Revit 2019 incorporates the split tool to split railings with a single click. Users can now have separate path sketches for disparate elements. This new release makes it easier for the users to build complicated railings and pipe networks.

### ● Extended Global Capabilities

Revit 2019 has an entirely new content library for Architects and Engineers. The main component is new content that facilitates multidisciplinary workflow capabilities. This new feature makes Revit work better for users in DACH countries like Germany, Austria, and Switzerland.

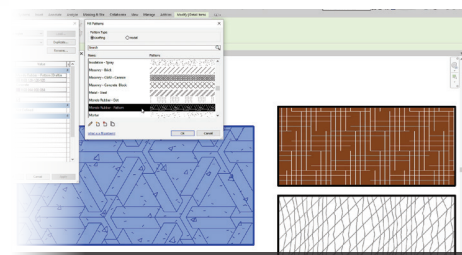
In an interview with Architosh, Chris Yanchar, Director, Building Design Products at Autodesk, stated that the continuous user feedback and requests helped Revit 2019 to enhance its designing features and optimize user workflow.



LEVELS IN 3D VIEWS



MULTIPLE MONITORS SUPPORT

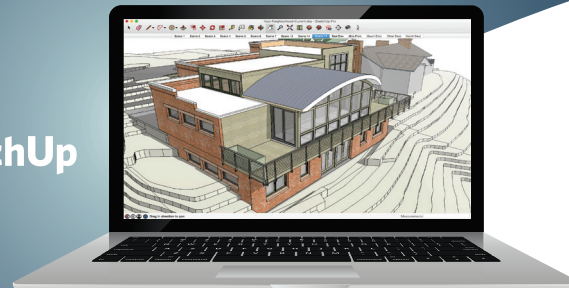


DOUBLE FILL PATTERNS

## CADD Centre Introducing **SketchUp**

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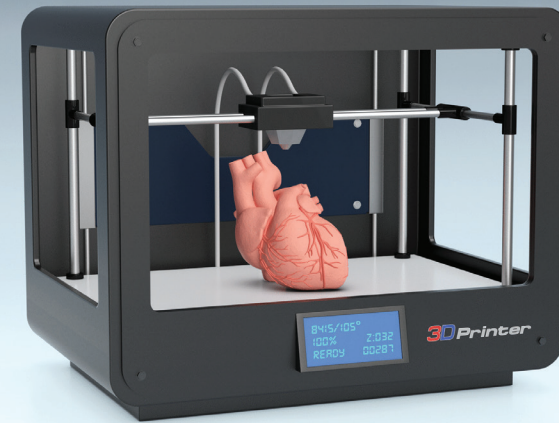
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# Open Source Innovation Could Put **3D BIOPRINTER** In Your Living Room



The primary goal of 3D Bioprinting is to make replacement of human organs

With open source innovation, it is easy, less expensive, and faster to innovate in every fields or endeavor. A recent breakthrough in 3D printing could be a game changer in the field of healthcare. The primary goal of 3D Bioprinting is to make replacement of human organs. This technology will merge the human-made world with the natural world.

### Access to Bioprinting Technology

Recently, 3D Bioprinting technology has developed a workable roadmap to overcome some of the engineering challenges encountered in the field of tissue engineering. Some innovative researchers from Carnegie Mellon University (CMU) are working on 3D Bioprinting technology to find the better alternative to produce high-quality prints of artificial tissue and replace the expensive Bioprinter.

Meanwhile, a team from the Materials Science and Engineering (MSE) and Biomedical Engineering (BME) departments have recently developed their own low-cost 3D Bioprinter. They have published their designs as an open source so that it is publically accessible to anyone who can build it.

### Bioprinting system

The 3D printer was commercially expensive, and proprietary closed source machines were not easily modifiable. The researchers from Carnegie Mellon University set out to change all that. The main aim of the researchers was to democratize the technology and to try to get it into more people's hands. Therefore, they created a syringe-based, large volume extruder (LVE) which can be modified and can work with almost any open source software or hardware. This innovation was compatible with low cost which makes it inexpensive and widely accessible to the world.

### Implication

When we compare our traditional products and parts design to current topologies, we get a glimpse of what is possible in our coming future. Therefore, the present technologies will lower the technical and financial hurdles in the development of 3D cellular biology.

Image courtesy: <https://www.bigelowospaceops.com> || [www.3ds.com](http://www.3ds.com) || [www.autodesk.com](http://www.autodesk.com) || <https://www.rdmag.com> || [intrinsys.com](http://intrinsys.com) || [cadland.it](http://cadland.it) || <https://www.youtube.com>

## AN INFLATABLE SPACE HOTEL Could be \_\_\_\_\_ Launched Into Orbit By **2021**

Have you ever dreamed of traveling into space?

Well, that can come true in the future because of the company "Bigelow Aerospace."

The company plans to launch an inflatable space hotel comprising of two 17-meter inflatable modules called B330-1 and B330-2. The B330 measures 16.8 meters (55.1 feet) long and 6.7 meters (22 feet) wide, with room for six people. These modules are linked together to form a private space station. They will be located about 403 km above Earth and will operate at low Earth orbit. Go ahead on this galactic vacation, but do not expect it to be cheap. As Bigelow estimated that the cost of staying a day would be "minimum eight figures."

If this mission is successful, it would be a giant leap for humanity. Meanwhile, it's not very early to start saving up for this fantastic destination!



CATIA stands for Computer Aided Three dimensional Interactive Application. It allows its users to create parametric and non-parametric models. Today, CATIA is not just an ordinary CAD software package; it is a software suite incorporating CAD, CAM and CAE capabilities.

# CATIA VERSION 6 RELEASE 2013X



The product enhancements in the CATIA V6R2013X are mentioned as below:

### ➤ CATIA Composites Fiber Modeler (CFM)

CATIA V6 is fully integrated with this proven and widely used technology from Simulayt. They combine the design and analyze the structures made from the fiber-reinforced materials.

### ➤ CATIA Offline

The CATIA Offline feature provides the additional flexibility to the users so they can access their current data on the go when ENOVIA V6 Server is not available.

### ➤ STEP AP42

By enhancing and merging STEP AP203 and STEP AP214, STEP AP42 provides the users to independently use the ISO standard approach for import and export of compressed and tessellated data.

### ➤ Best Multiversion Compatibility

The features of V6R2013X created in the FreeStyle workbench can be transferred with all the specifications to V5-6R2013.

### ➤ Multiple advances in System Engineering

Using the Modelica standard, five new model libraries are added to the CATIA system to improve the product design, and the comprehensive set of libraries help in the study of Thermal Power Systems.

### ➤ Live Rendering Feature

CATIA live rendering a great boon for Industrial designers. They can add pictures in the background without any hindrance on the performance of the central computer.

### ➤ CATIA Natural Sketch

This feature allows the creative designers to draw in 3D directly. Using the initial rough designs.

### ➤ CATIA Icem

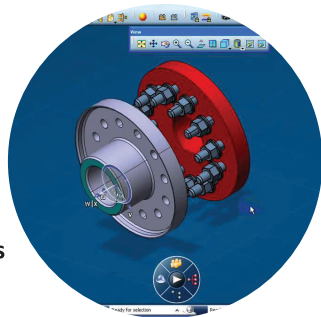
Through the feature of CATIA Icem users can create the perfect shape at the first step. The updates made through this feature have reduced the repetition of same tasks.

### ➤ Mold-Design Process

The complex Mechanical systems can be created quickly through this process.

### ➤ Increase flexibility and Traceability of Components

Through merging and branching abilities, the designers can synchronize and navigate their components and view evident impacts.



## INTRODUCING 5 BOOKS EVERY ENGINEER SHOULD READ TO BOOST THEIR CAREER

For improving your technical abilities and dealing better with peers, here are the five books that would help you to grow faster.

📖 **The Design of Everyday Things** - Donald A. Norman  
About – Reflection on daily use objects including computers, light switches, door handles, etc.

📖 **Structures: Or Why Things Don't Fall Down** - J.E. Gordon  
About – Narrates principles of structural engineering and basic forces of bridges, dams, etc.

📖 **Basic Machines and How They Work, Revised (1994) Edition** - Naval Education and Training Program  
About – Elaborates theory, design, and application of mechanical products.

📖 **Elon Musk: Tesla, SpaceX, and the Quest for a Fantastic Future** - Ashlee Vance  
About – Insights about great entrepreneur, Elon Musk and his inspirational journey.

📖 **How to Win Friends and Influence People** - Dale Carnegie  
About – Simple and easy techniques of winning people around you.

