**For Immediate Release**

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**PHOTOS:** [www.bldpressroom.com/branch/lunar-demo-structure](http://www.bldpressroom.com/branch/lunar-demo-structure)

**Branch Technology Unveils Extraterrestrial Habitat Outfitting Prototype,
Underscores Innovative Collaboration with NASA**

*Firm’s Work with Space Agency, Stanford University, Foster + Partners on Display at
Chattanooga Company’s Headquarters*

**CHATTANOOGA, TN** **(October 27, 2022)** – [Branch Technology](https://branchtechnology.com/), a revolutionary construction-technology company that 3D prints facades for commercial buildings, today demonstrated how its innovative approach to large-scale 3D printing for commercial construction could also be used to construct and outfit extraterrestrial habitats on the moon or a planet other than Earth. Together with [NASA](https://www.nasa.gov/), [Stanford University](https://www.stanford.edu/), and architectural firm [Foster + Partners](https://www.fosterandpartners.com/), Branch Technology hosted an open house at its manufacturing headquarters (1530 Riverside Drive, Suite B, Chattanooga) to unveil a prototype demonstration structure, the result of a collaboration among the four entities.

Branch Technology’s proprietary approach to 3D printing – called Cellular Fabrication, or C-Fab® – made the creation of the demo structure possible. Rather than using a traditional layered approach to 3D printing, C-Fab® is Freeform 3D printing. Robots extrude fiber-reinforced polymers that solidify in the air, resulting in the creation of a lightweight lattice structure called BranchMatrix™, which can take virtually any shape or form. In addition, Freeform printing allows volumetric objects to be printed with 95% less material than would be required to print the same objects in a solid from. Because of this material efficiency, Branch and NASA are exploring the application of C-Fab® as an automated 3D printing process in-situ on the moon where resource consumption must be minimized.

“Branch Technology’s unique Freeform 3D printing technique holds enormous potential for off-world applications, and this demonstration structure shows how we might apply our innovative construction technology in a lunar context,” said Platt Boyd, founder and CEO of Branch Technology.

“NASA is keenly interested in this technique for in-space manufacturing and construction, because it allows astronauts and mission planners to minimize material consumption. Whether those materials are launched out of Earth’s gravity well – which is prohibitively expensive – or harvested in space – which presents a host of other challenges – mass-efficiency is key to sustainable lunar operations,” said David Goodloe, Branch Technology’s principal investigator on the project.

“Imagine being able to optimize and 3D print the components for a habitat on the lunar surface with lunar-derived materials,” Boyd added. “It opens new pathways for creating a sustainable human presence on the moon. C-Fab® represents the leading edge of a new era in 3D printing and construction – here on Earth, and perhaps beyond.”

Branch’s advancements in 3D printing technology allow for unprecedented design freedom at construction scale. Relying on digital files rather than shop drawings, C-Fab® results in extreme accuracy and can produce physical designs that have previously only been possible in renderings. The process is also much more efficient than typical methods and produces drastically less waste compared to traditional construction projects.

Local elected officials that were expected to attend the lunar demonstration structure open house at Branch Technology included Mayor of Chattanooga Tim Kelly; Councilman Darrin Ledford, Chairman of the Chattanooga City Council; Council Vice Chair Raquetta Dotley and Councilwoman Marvene Noel of the Chattanooga City Council; as well as Christy Gillenwater, president and CEO of the Chattanooga Area Chamber of Commerce. Attendees also had the opportunity to take a tour of Branch’s manufacturing operations and watch the 3D printing robots in action.

**About Branch Technology**

[Branch Technology](https://branchtechnology.com/) is a revolutionary construction-tech company that 3D prints facades for commercial buildings. Branch Technology combines industrial robotics, powerful geometry-based algorithms, and a novel "Freeform" extrusion system that enables unprecedented design freedom and resource efficiency in the construction arena. Branch works with developers, architects, builders, and sectors of the US government to bring the productivity and design freedom of direct digital fabrication to the built environment.

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