

Starbucks Unveils First 3D-Printed US Store

VOCABULARY WORDS

1. **Depositing** (verb) /dɪˈpɒzɪtɪŋ/: Putting or laying down something in a specific place.
Example: The machine is **depositing** the sand slowly to create the base.
2. **Utilized** (verb) /ˈjuːtɪlaɪzd/: Made practical use of something; used.
Example: The team **utilized** all their resources to finish the project on time.
3. **Venture** (noun) /ˈventʃər/: A new business activity or project that involves risk.
Example: Starting a new restaurant is always a big **venture**.
4. **Ridged** (adjective) /rɪdʒd/: Having a raised line or stripe.
Example: The potato chips had a **ridged** surface for extra crunch.
5. **Implement** (verb) /ˈɪmplɪmənt/: To put a decision, plan, etc., into effect.
Example: The company plans to **implement** new safety rules next month.
6. **Incurs** (verb) /ɪnˈkɜːr/: Becomes subject to (something unwelcome or unpleasant) as a result of one's own behavior or actions.
Example: If you don't pay your bills on time, you will **incur** a late fee.



Starbucks has opened its initial 3D-printed coffee shop in the United States. The renowned coffee company, based in Seattle, already operates over 17,000 outlets across the country, but this new location, which debuted in Texas at the end of April, stands apart from any other.

This particular store, situated in Brownsville, Texas, near the Mexican border, was constructed with the aid of a computer-controlled robotic arm. This innovative arm efficiently performed much of the building process by **depositing** concrete layer upon layer. The establishment functions solely as a drive-thru, serving as another example of a major retailer exploring 3D printing for commercial building projects.

Typically, builders have **utilized** this technology primarily in residential construction as they seek fresh approaches to address the ongoing affordable housing crisis. Starbucks has not yet confirmed whether more such stores are in the pipeline, or why Brownsville, a city of approximately 190,000 residents with at least four existing Starbucks outlets, was chosen for this **venture**.

At first glance, the compact, rectangular building, featuring the familiar Starbucks logo, appears similar to any other store. However, a closer inspection reveals distinctive **ridged** walls that resemble stacked tubes. Construction experts indicate that this store represents an industry actively finding new ways to **implement** this technology.

"It's still very early for this," remarked James Rose, director of the Institute for Smart Structures at the University of Tennessee. "I'm pleased to see people trying all these different things with it, and I believe eventually we'll discover its optimal use. But for now, I anticipate much experimentation, and I think that's beneficial." Andrew McCoy, from Virginia Tech university, described the new store as "leading edge." Generally, 3D printing in construction still **incurs** higher costs than traditional wood framing, McCoy noted. However, he added, it helps address a shortage of workers and can enable faster construction. He expects it will gradually become more affordable.

DISCUSSION

1. Imagine you could design a new Starbucks store using 3D printing! What fun and unique shape would it have, and what cool features would you add that a normal store doesn't have?
2. The robotic arm works by layering concrete. If you had a tiny robot friend, what silly and helpful chore would you teach it to do at home? Like building a snack tower!
3. This Starbucks is drive-thru only. If you could invent a super speedy way to get your favorite drink, what would it be? Maybe a flying drone or a teleportation device just for drinks!
4. 3D printing can help build houses faster. If you could 3D print your dream treehouse, what amazing things would be inside it, and what would it look like?
5. The article says the walls look like "stacked tubes." If you built a fort out of giant stacked tubes, what kind of secret tunnels or adventure rooms would it have?
6. The experts say 3D printing is still in its "early days." What futuristic or magical things do you think 3D printers will be able to make in 100 years?
7. This new store is "leading edge." What's one super cool new invention you wish existed right now to make your life more fun?
8. Building with 3D technology can be faster. If you could build a giant LEGO city in one minute with a magic tool, what would be the first three buildings you would make?
9. The article mentions that 3D printing helps with a shortage of workers. If robots helped build everything, what new and exciting jobs might people do instead?
10. If Starbucks made a special drink inspired by their 3D-printed store, what would it be called, what unique ingredients would it have, and would it look like a little stacked building?