

Mohmmadazhar Khalifa  
03/16/2022  
Mobile Apps II

## Week 7 Summaries

### Article 1: Stackable “Holobricks” Can Make Giant, Highly Realistic 3D Holographic Images

New developments in holographic images have been discovered by University of Cambridge and Disney research, which can mean a new era of high quality, realistic 3D images. Due to the large data flow of three terabytes per second needed to display a 3D, we have yet to find a solution to displaying holographic images. Moreover, unlike 2D displays where small size images are pieces together to form a larger one, it is not yet possible to piece together 3D images in real space. For this purpose, the concept of holobricks was invented, which uses a high information bandwidth spatial light modulator to deliver information. Each brick can form its own angularly tiled 3D hologram piece and these bricks can be piece together seamlessly to present a wide field of view angle and large display.

### Article 2: Robot-Aided Assembly Could Speed Pace of Discovery for Incredible New Technologies

To speed up the testing process on an invention, the researchers at University of Chicago, Cornell University, and University of Michigan have developed an automated process for the testing the stacking of different types of 2D materials. To eliminate testing each combination by hand, this process can save time, thus speeding up creation of new technologies. The assembly of nanomaterials requires a robot hand and a precise pattern. The robot hand is made of soft polymer that melts when exposed to heat or ultraviolet, allowing the 2D sheet to gently drop. With this assembly line, scientists could test out many layers in a matter of minutes.

## Bibliography

@misc{university of cambridge\_2022, title={Stackable "holobricks" can make giant, highly realistic 3D holographic images}, url={<https://scitechdaily.com/stackable-holobricks-can-make-giant-highly-realistic-3d-holographic-images/>}, journal={SciTechDaily}, author={University of Cambridge}, year={2022}, month={Mar}, abstract={ This is interesting because even though we have 3D images present in gaming experiences like VR or in movies, we have yet to see 3D in the form of holograms which can be a major step in the viewing experience. It is important because we often see holographic images in movies as a reference to the future but being a step closer to that making that into a reality is an achievement. }}

@misc{lerner\_2022, title={Robot-aided assembly could speed pace of discovery for incredible new technologies}, url={<https://scitechdaily.com/robot-aided-assembly-could-speed-pace-of-discovery-for-incredible-new-technologies/>}, journal={SciTechDaily}, author={Lerner, Louise}, year={2022}, month={Mar}, abstract={ This article is interesting because it shows an autonomous assembly of stacking nano materials which can create interesting properties. The technology is important to drastically reduce time taken by manual permutations before a final product can be delivered. }}