

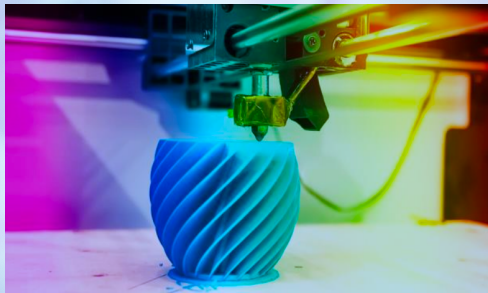


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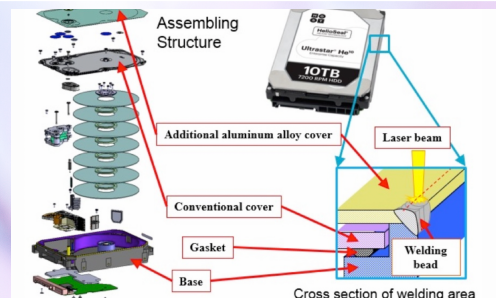
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Byte Quest

Department of
CSE



3-D PRINTING



HELIOSEAL TECHNOLOGY



K-NEAREST NEIGHBOURS



SMART GOGGLES BY FACEBOOK

Department Vision

To be a center for academic excellence in the field of Computer Science and Engineering education to enable graduates to be ethical and competent professionals.

Department Mission

To enable students to develop logic and problem solving approach that will help build their careers in the innovative field of computing and provide creative solutions for the benefit of society.

FACULTY COORDINATORS

S. KOMAL KAUR (ASST. PROFESSOR)
T. NISHITHA (ASST. PROFESSOR)

4TH YEAR

K. ANISHA(CSE-B)
ABHINAV (CSE-A)

3RD YEAR

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VARUN(CSE-C)
TARUN KRISHNA(CSE-B)



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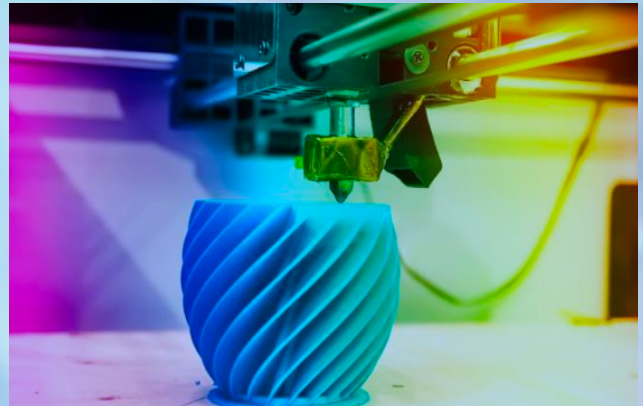
3D PRINTING

When we print a page on a printer, there are only two dimensions: the front of the page and the back of the page. Three-dimensional printing adds a third dimension, volume.

The steps involved in the 3D printing process are: first, find or create a model using Blender, SketchUp or OpenSCAD software. Then prepare the model for printing. The next step is to create a STL file which converts the model to into a code that the 3D printer understands using Netfabb or similar software. Finally, adjust the printer as needed. Non-resin 3D printers use mostly ABS and/or PLA plastic which becomes pliable when heated then solid.

Printing a three-dimensional object can take hours or days to complete, depending on the complexity and size of the object.

Today, 3D printing is mostly done by businesses, students, and designers. Home or consumer use of 3D printing is mostly limited to people trying out this technology.

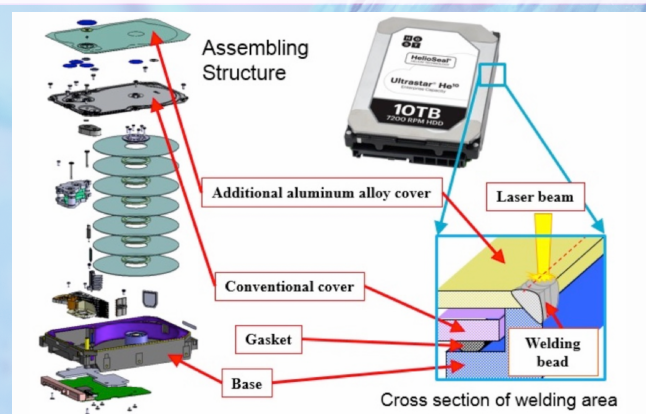


HELIOSEAL TECHNOLOGY

Today's data centres face many storage challenges - from storage density, to power and cooling costs, to reliability and more. As datacentre's capacity needs grow, challenges grow as well.

Responding to the complex needs of the modern data centre, Western Digital has developed the HelioSeal technology, a foundational building block for high-capacity hard disk drives (HDDs). This innovative technology hermetically seals the HDD and replaces the air inside with helium, which is one-seventh the density of air. The less-dense atmosphere resets the boundaries and challenges of conventional high- capacity HDDs, allowing for dramatic increases in efficiency, reliability and value.

HelioSeal technology delivers today's lowest total cost of ownership (TCO) for hyperscale and data-centric applications.





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K - NEAREST NEIGHBOURS

K-Nearest Neighbour is one of the simplest Machine Learning algorithms based on Supervised Learning technique.

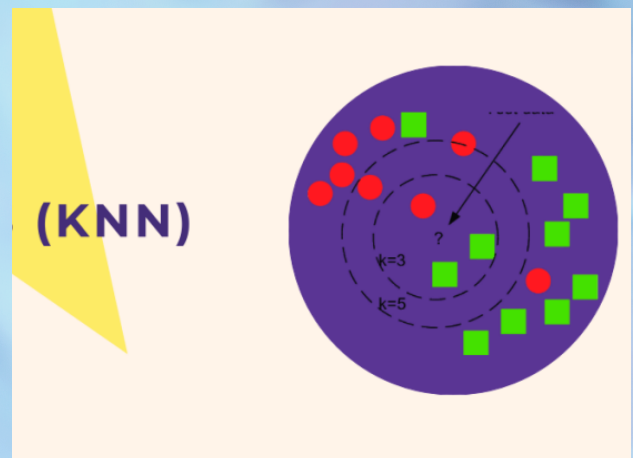
KNN works by finding the distances between a query and all the examples in the data, selecting the specified number examples (K) closest to the query, then votes for the most frequent label

(in the case of classification) or averages the labels (in the case of regression). In other words, predictions are made for a new data point by searching through the entire training set for the K most similar instances (the neighbors) and summarizing the output variable for those K instances.

For regression problems, this might be the mean output variable, for classification problems this might be the mode (or most common) class value. The trick is in how to determine the similarity between the data instances. The simplest technique if your attributes are all of the same scale (all in inches for example) is to use the Euclidean distance, a number you can calculate directly based on the differences between each input variable.

KNN can require a lot of memory or space to store all of the data, but only performs a calculation (or learn) when a prediction is needed, just in time. You can also update your training instances over time to keep predictions accurate.

The idea of distance or closeness can break down in very high dimensions (lots of input variables) which can negatively affect the performance of the algorithm on your problem. This is called the curse of dimensionality. It suggests you only use those input variables that are most relevant to predicting the output variable.

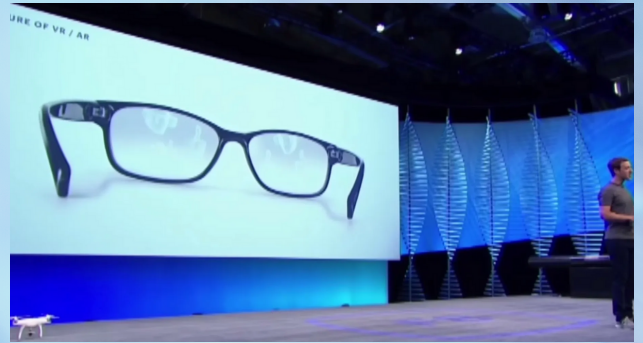




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SMART GOGGLES BY FACEBOOK

Facebook's first 'smart' glasses capitalise on the iconic Wayfarer design that has been associated with the iconic eyewear brand. They also comes in two other designs: round and meteor. At first glance, these might seem like ordinary sunglasses, except that they come equipped with two 5MP cameras at the corners with an LED light near them. The white LED light turns on to let others know you are recording them.



Facebook's smart glasses will let users record the world around them, and take pictures. This is exactly what Snap's Spectacles also let users do. For now, users can record 30-second videos or take photos by using either the capture button or going hands-free with Facebook Assistant voice commands.

Facebook's glasses also come with built-in "open-ear speakers" and a three-microphone audio array, which will ensure that users can take calls as well. Facebook says it is using "beamforming technology" and "a background noise suppression algorithm" to ensure an "enhanced calling experience" just like what one gets on headphones.

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