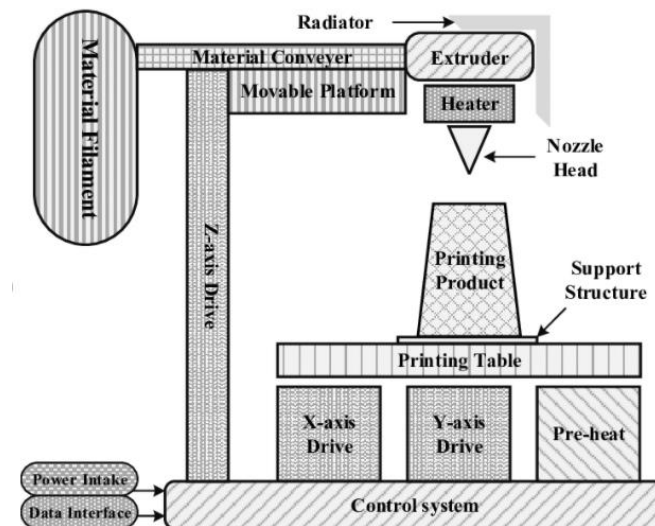


3D PRINTING

Key Revision Facts: GCSE Technology

Additive Manufacturing

3D printing, or additive manufacturing, is constructing a three-dimensional object from a CAD model or a digital 3D model. The term "3D printing" can refer to various processes in which material is deposited, joined, or solidified under computer control to create a three-dimensional object, with the material being added together (such as plastics, liquids, or powder grains being fused together), typically layer by layer.



Stereolithography

Stereolithography is a form of 3D printing technology used for creating models in a layer by layer fashion using photochemical processes by which light causes chemical monomers to fuse together to form polymers.

Pro's and Cons of 3D Printing

Advantages of 3D Printing	Disadvantages of 3D Printing
3D printing has improved time from conception to implementation.	Inefficient for large production batches.
3D printing enables design concepts that aren't capable of being produced in any other medium.	Most of the materials used in 3D printing are more expensive than similar materials used in other manufacturing processes, like injection molding or CNC machining.
Eco-friendly process because the process has very little waste.	3D printing can also be used for counterfeiting or just stealing somebody else's design and replicating it.

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VERSION INFORMATION

Date	Arthur	Comment
17-Jan-2021	Andrew Seaford	Initial release.