

Additive Manufacturing	Subtractive Manufacturing
Involves adding layers of material to create an object	Removes material from an object
Processes include 3D printing, direct digital manufacturing, rapid prototyping or additive and layered fabrication	The process is either by: manual removal, traditional machining or CNC machining
Uses computers and specialist 3D printing equipment to create products or prototypes	Uses computers and robotics to assist standard machining processes, e.g., turning, drilling or milling
The layering often leaves a slightly 'stepped' or rough surface which needs to be finished post-printing by sanding or blowing	A variety of surface finishes can be machined, including smooth, stepped, mottled, etc.
Intricate and hollow objects can easily be built up in layers	Milling undercuts and intricate shapes can be difficult
Best suited for smaller items or parts, especially in plastic	Best suited for manufacturing voluminous items and parts, especially in metal
Depending on the size of the object, 3D printing can be a slow process	Relatively fast process
<a href="#">Software</a> is available to directly link the design to a 3D printer, so a machine operator isn't necessary	A CNC machinist is required to operate the mill or machine and oversee the production. However, new automated software means that programming machine-executable code is no longer needed
Overall, 3D printing is a fairly cheap process	Generally, more expensive than additive manufacturing