

Digital Fabrication

Art & Design

Laser, router and 3D print: what each makes well, and what it cannot.

Match the process to the geometry, then draw for it.

Process	Makes	Constraint
Laser cutter	Flat parts, engraving	2D only; kerf; material list
CNC router	Sheet and 3D relief	Tool radius at inside corners
FDM print	Rough 3D parts, fast	Layer lines; needs supports
SLA resin	Fine detail, smooth	Brittle; messy; needs curing
Vinyl cutter	Signage and stencils	Minimum line weight
3D scanning	Capturing a real form	Noisy; heavy cleanup

Draw for the process. A part designed without the tool radius, the kerf or the layer direction in mind will not come off the machine.