

Reinventing the Wheel with 3D Printing



DMLS

(DIRECT METAL LASER SINTERING)

Fuses layers of metal powder with a laser to quickly & accurately produce complex parts.

FINISH:

- ✔ Uniform finish after bead blasting

MATERIAL NOTES:

- ✔ Aluminum or stainless steel
- ✔ Strong mechanical and dynamic properties

OTHER NOTES:

- ✔ Designs that would typically require assemblies can be made in a singular piece



PolyJet

Versatile process that jets & cures liquid photopolymer to quickly produce precise parts.

FINISH:

- ✔ Smooth finish without visible layers
- ✔ Can print multi-material parts

MATERIAL NOTES:

- ✔ Wide variety of materials
- ✔ Varying durometer from rigid to rubber-like

OTHER NOTES:

- ✔ Fast build time
- ! Avoid fragile features



Binder Jet

Fuses layers of composite metal powder with a binding agent to produce dense & durable parts.

FINISH:

- ✔ Media tumbled or matte finishes available

MATERIAL NOTES:

- ✔ Stainless steel infiltrated with bronze
- ✔ Extremely strong material

OTHER NOTES:

- ✔ Great for prototyping die cast or forged components



FDM

(FUSED DEPOSITION MODELING)

Extrudes plastic filament layer by layer to quickly produce accurate & cost-effective parts.

FINISH:

- ! Visible layers, particularly on curved surfaces

MATERIAL NOTES:

- ✔ Variety of materials & colors
- ✔ Rigid production-grade thermoplastics

OTHER NOTES:

- ✔ Infill options allow for control of part density



SLS

(SELECTIVE LASER SINTERING)

Fuses layers of nylon powder using a laser to accurately produce durable parts.

FINISH:

- ✔ Satin-like matte finish after media tumbling
- ✔ Color options available through dyeing

MATERIAL NOTES:

- ✔ Durable white nylon
- ✔ Strong & stiff material

OTHER NOTES:

- ✔ Suitable for prototypes & end-use parts



Why 3D Printing?

- ✔ **SCALABILITY:** Quickly create prototype iterations & efficiently scale production orders
- ✔ **FAST LEAD TIMES:** Eliminate the need for expensive tooling or molds
- ✔ **COMPLEX GEOMETRY:** Produce precise & complex parts that are difficult or impossible to create through other processes