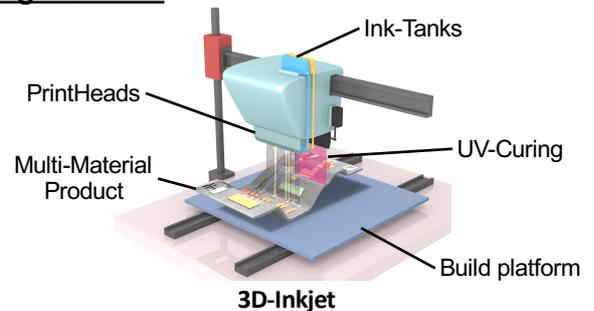
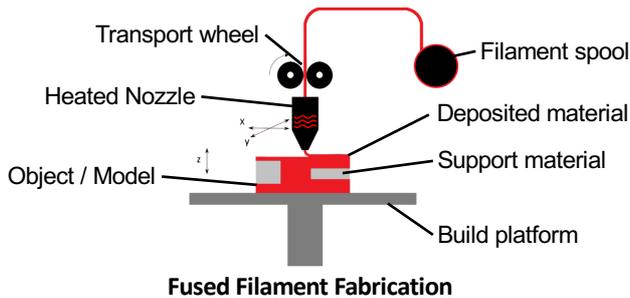


3D Printing Technologies in KNMF

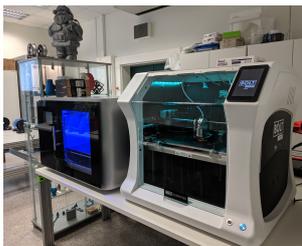
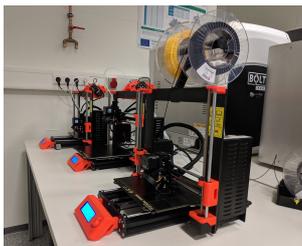
What is 3D Printing?

Additive Manufacturing (commonly known as 3D Printing) is the layer-by-layer deposition of material, forming a three-dimensional object. Based on digital model data (CAD) the build is performed by successively adding material by physical or chemical hardening/melting processes.

Additive Manufacturing in KNMF



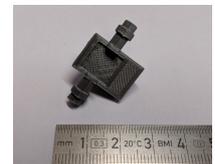
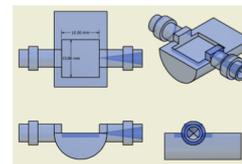
Fused Filament Fabrication



Flexible: 3D printed customized sealing



Multimaterial / Graded parts



Structural: 3D printed stator for NMR applications

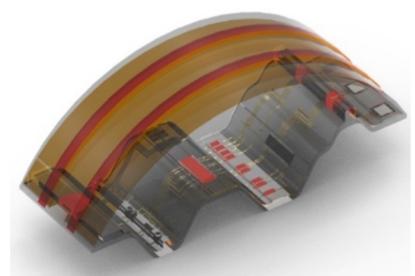
Capabilities: z-Resolution: 50 μm
x-y Resolution: 200 μm
Build volume up to 0.9 m^3 (700x700x1800 mm)
Custom Filament Fabrication

3D Inkjet Printing

Open 3D Inkjet Printing Platform



- Possible layer height 10 μm
- Positioning accuracy +/- 1 μm (XY), 2 μm (Z)
- Drop placement accuracy +/- 5 μm
- Build volumes: 305 x 305 x 70 mm
156 x 200 x 80 mm
- High speed printing up to 800 mm/s
- Drop watching
- UV curing (395 nm & 405 nm)
- High laydown technology



- Free Material Choice
- Printing Parameter Variation
- Automated Process Control
- Multiple Printheads

- Material testing
- Optimization of printing processes
- Integration
- Fabrication of multi-material / functional parts