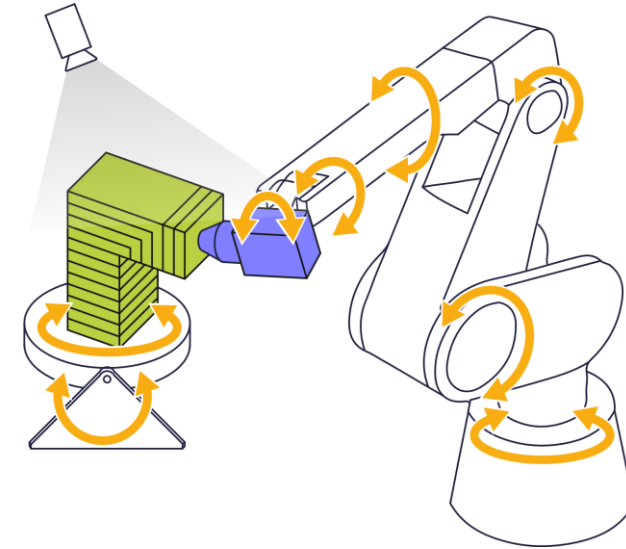
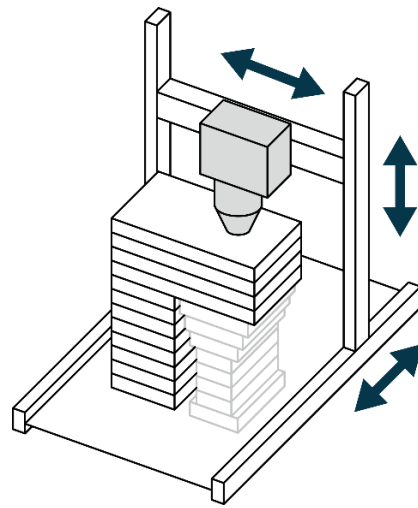




FreeD
Printing

Multidirectional 3D printing with industrial robots

3D printing with 6 instead of 3 axes



Today modeling only using 3 axes and only with plane, horizontal layers in one direction from bottom to top

Unlimited movement of the process head with industrial robot enables modeling with:

- Free formed layers
- Variable modeling directions

Efficient manufacturing processes and new fields of application

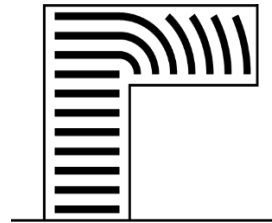
- + Large components as one piece
- + No support structures
- + Smooth surfaces (no staircase effect on parts of the surface)
- + Printing on existing components
- + Strength improvement by alignment of layers

New production possibilities

Common 3D printing methods



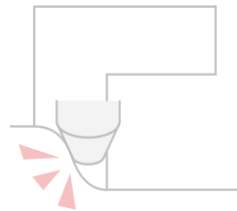
Avoidance of support structures



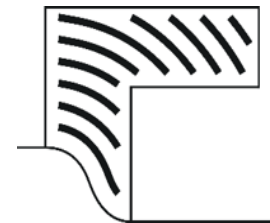
✓ **Reduction** of the planning process and construction time

✓ **Savings** in production material

✓ No post-processing for removal of support structures



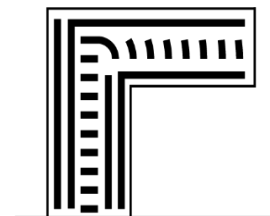
Printing on freely formed Surfaces



✓ **Modeling on existing objects** e.g. for repair or wear protection



Various layer orientations



✓ **Improvement and optimization** of component strength and surface finish



Systems
technology



Customized manufacturing system



- **Customized modular manufacturing systems** as system solutions
- Assembly of individual modules of **process planning software, process and system technology** based on manufacturing requirements
- **Typical FLM materials** processable: PLA, PETG, PU, ABS, PP, PA, fiber reinforced filaments
- **Transferable to metal-based additive manufacturing processes** like as Laser Metal Deposition (LMD) or Wire and Arc Additive Manufacturing (WAAM)



Dipl.-Ing. Michael Rieger
Founder / CEO

rieger@freedprinting.de

+49 231 22611231

www.freedprinting.de

Awards



Inventors' Award



Science Award



1. Place start-up competition



2. Place Accelerator



16. Place

Grants

