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## **【725】 4D printing –Moisture induced shape changing behavior of FDM (Fused Deposition Modeling) 3D printed objects using wood filaments**

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In general, 4D printing is a programmable deformation of the manufactured object over time, triggered by an external stimulus. For the sample production, a specially developed wood filament with a high sensitivity to moisture was used. Two different sample types having various print directions were designed and produced using an FDM 3D printer. As soon as the specimens came into contact with moisture, for the first type the print directions applied led to an outward curvature, while for the second type the print directions chosen resulted in an inward curvature. Once the moisture disappeared, the samples returned to their original FDM 3D printed geometry

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