Lehrstuhl für Carbon Composites
Fakultät für Luftfahrt, Raumfahrt und Geodäsie
Technische Universität München

HiWi – Student Assistant

Revision of CAD instructions and practical preparations for 3D printing seminar

The Chair of Carbon Composites (LCC) is researching innovative methods and concepts for extrusion-based additive manufacturing. The widely used fused filament fabrication (FFF) process is ideal for manufacturing functional components thanks to the equipment and process technology used and the high degree of automation involved. It is the subject of a seminar and practical course in which students learn the most important aspects of this process in a practical setting. To prepare for this seminar, we are looking for a Hiwi (research assistant) for a total of 60 hours, starting immediately and continuing until December 2025.

As part of the 3D printing seminar, a total of three 3D printers will be assembled, set up, and tested. The 3D printers are based on the Prusa MK3S+ printers, with slight design modifications. The seminar also includes teaching content on software packages that are relevant for working with 3D printers. The HiWi's task is to revise the CAD design instructions, which were created in Autodesk Fusion 360 and need to be updated to the newer version of Fusion 360. In addition, a few design changes need to be incorporated. Knowledge and experience with Fusion 360 or Inventor are therefore a great advantage. Furthermore, the Hiwi position also includes practical work, in which the currently assembled 3D printers are to be tested and then carefully dismantled. Instructions and parts lists for sorting are available and should be supplemented as needed.

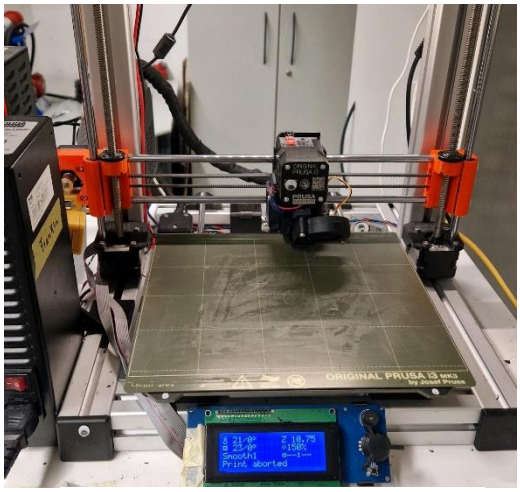

Figure 1: 3D-Printer at the LCC.

Focus of this work

- Revision of CAD instructions in Fusion 360
- Checking the functionality of the 3D printers
- Dismantling the 3D printers and sorting the parts
- Documentation

Requirements

- Interest in 3D printing and, ideally, experience in working with 3D printers, both hardware and software
- Tinkerer/hobbyist mentality and a good understanding of construction
- Knowledge and experience with Fusion 360

Start Date: As soon as possible

Bei Interesse oder Fragen einfach melden bei:
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