

## **Task Overview for Forschungspraxis/Ingenieurpraxis**

### **Fabrication of tapered dimpled fiber**

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#### **Task Overview**

- ❖ Literature research on tapered dimpled fiber
  - Gain knowledge about basic device functioning
  - Identification of state-of-the-art key performance parameters
- ❖ Build up a setup for tapered dimpled fibers
  - Learn how to draw technical images in Solid Works
  - Work with workshop team on realization. Use metal or 3D printing parts
  - Write a stepper motor control algorithm for pulling the fiber
- ❖ Analyze the device
  - Reproducibility: analysis of fabricated fibers in transmission optical setup
- ❖ Extra Task
  - Analyze the influence of tapered fiber position on the device performance
  - Setup and read-out algorithms