Surface cleaning of complex geometry ceramic parts

✓ **Bachelor- / Studien- / Masterarbeit**

3D printed complex ceramic parts might have some artefacts and irregularities on their surfaces. This requires further post-processing, either before sintering or after sintering using suitable methods. Various methods and their process parameters must be systematically investigated to determine their suitability for ceramic part surface cleaning. Of high interest is the approach to clean the surfaces with abrasive media in the rotating/vibrating drum.

Tasks:

- Determination of suitable surface cleaning processes and parameters to be investigated
- Construction of the device for process parameter investigation
- Characterization of achieved surface cleaning using microscope

Nature of the study: Experimental work, grinding

Student must know: CAD, 3D printing basics, Arduino programming basics, basics of electronics

You will learn: everything above + use of microscope, use of various measurement devices

Additional information:

- You select language of the work, either German or English
- Multiple works on same topic possible (e.g. Studienarbeit + Masterarbeit)

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Published: 2026 February

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