

TECHNISCHE UNIVERSITÄT DRESDEN

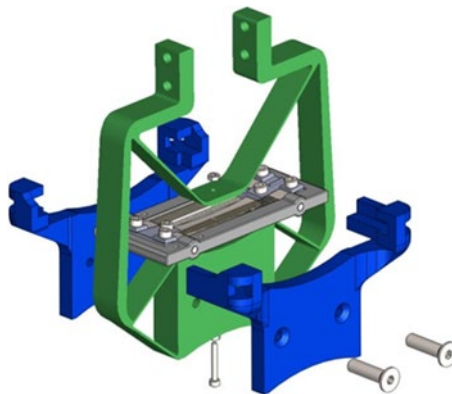
FAKULTÄT ELEKTROTECHNIK UND INFORMATIONSTECHNIK

3D printing task

Topic: „Design and Development of a Bistable Gripper“

Goal:

The goal is to design a gripper with two stable holding positions: an open state, where samples can be inserted, and a closed state. The transition between these states should be achieved through a small movement of the gripper arms, ensuring that the gripper remains securely in either the open or closed position.



The following sub tasks will be due:

- Defining the functionality and physical requirements (range of motion, geometry)
- Creating a 3D model using CAD software (Autodesk Inventor, Blender, SolidWorks, ...)
- Selecting appropriate 3D printing methods and materials
- Printing the bistable gripper, conducting functionality tests (optimizing the printing process, identifying weaknesses)

Responsible

Professor: Prof. Dr.-Ing. Dr. h.c. mult. Karlheinz Bock

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