

# 3D print a sensor in plastic

The temperature instrument holder is currently in operation as a GEA product. The purpose of the project is to re-design the instrument from several pieces to a single piece that fulfill a few criteria. The focus on the case can be changed based on the interests of the participants.



## Design Criteria

- Instead of several pieces GEA is interested in a probe holder consisting of 1 piece
- Temperature environment:  $-60^{\circ}$  to  $125^{\circ}$
- Surface roughness  $R_a < 0.8$
- Sanitary design
- Simulate/test for lifetime cycles to prevent fatigue failure
- Yearly amount to manufacture: 200 pcs

## Focus of the case

The case will be described for the chosen team, but includes the topics:

1. Optimizing the part (CAD 3D)
2. Understanding the Processes
3. Technical Properties found using test facilities
4. Business case

The above points are meant as an inspiration to further dialogue as we will work on a final project description in cooperation.

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